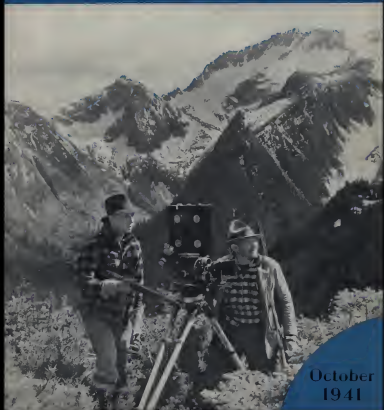


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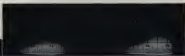


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THE MOTION PICTURE CAMERA MAGAZINE

VOL. 22

OCTOBER, 1941

NO. 10

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The Front Cover

The cover this month shows Ray Fenimore, A.S.C. (right) and producer Leah Shelley on location somewhere among the Canadian Rockies filming a Cinecolor short-subject, "British Columbia Sports," for Columbia release. The camera used is a kiosk-equipped Bell & Howell with special equipment to take the two negatives required by the two-color process.

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16mm SOUND TESTS PICK TWO NEW STARS

By WILLIAM STULL, A.S.C.

SIXTEEN millimeter sound-and-picture tests are responsible for the selection of two of Hollywood's newest stars! When Howard Hughes began casting for his latest production, "The Outlaw," he decided that his screen version of this saga of Billy the Kid would be more convincing if screen newcomers, rather than established film "names," portrayed Billy and his fiery sweetheart. That decision meant tests—and lots of tests. You can't determine whether a young player is good or not by mere visual inspection, or even by studying still portraits. You've got to see what the cine-camera does to appearance, and what the microphone does to the voice. And in a case like this, where success spells stardom virtually overnight, there will inevitably be a world of applicants to be tested.

Therefore on account of its economy and convenience, 16mm.—with sound—was chosen as the medium for making the tests. So successful did these substandard tests prove that Jane Russell and Jack Bruckert were chosen solely on the evidence presented by 16mm. film. No 35mm. tests of any kind were made until after the final selection had been made—and then the standard-film tests were made only as a check to make sure that the 16mm. camera and recorder had not been unduly flattering!

Very wisely, Hughes and his then associate, Director Howard Hawks, enlisted the cooperation of an organization specializing in 16mm. commercial films and recording—Hollywood's Telefilm studio. The project was carried through with standard professional 16mm. equipment—a Berendt-Maurer "Sound-pro" camera and a Berendt-Maurer 16mm. double-system recorder. On the sound end of things, Pete Gings, the Telefilm recording engineer, was in charge. The photography—which extended over a period of several weeks—was skilfully handled by Randolph Clardy, 16mm. camera-film specialist. Maurice, the celebrated feminine portrait-photographer who had made the innumerable preliminary study films from which the final thirty-five applicants were selected, and Director of Photography Lucien Ballard, A.S.C. Director Howard Hawks directed the tests.

Since convenience, as well as economy, was one of the major considerations of

this 16mm. testing program, a test-stage was improvised in a large room in the basement of the Hollywood Laboratory building which housed the offices of the various Hughes enterprises. A set of suitable Mexican architecture was obtained from an independent 16mm. studio, transported to this room, and rebuilt to provide a suitable background for the tests.

Standard 16mm. film products were used. Since the 16mm. production was to be in black-and-white, it was decided to employ regular Eastman Super XX reversal film rather than the Kodachrome so often used in making major-studio silent 16mm. tests. The recording was done on DuPont 16mm. sound-recording positive. The picture-film of course went through the processing of the Eastman Hollywood reversal-film laboratory, while the sound-track was developed and printed by Hollywood Film Enterprises. In all, over 15,000 feet each of 16mm. sound and picture film were exposed.

Since the scenes were for test use only, no composite prints were deemed necessary. Instead, 16mm. studio practice was followed: the separate sound-track and picture were reproduced by using electrically interlocked 16mm. projectors. This method was found to be entirely satisfactory for the purpose, and of course eliminated the additional delay and expense of making composite prints.

Without doubt, the surprising factor in these tests was the sound quality. Other studios had for some time been making silent 16mm. tests in both black-and-white and color; the fact that this could successfully be done had been proven beyond doubt. But the general opinion regarding the use of 16mm. sound was that substandard recording had not as yet progressed to the stage where it could be compared with 35mm.; when the Hughes testing program was begun, all that was hoped for was that the sound emerging from the 16mm. speakers would be intelligible.

The actual results proved a revelation: while the 16mm. sound-quality was of course not to be compared with the best obtainable when major-studio 35mm. recording is reproduced on the finest of equipment, it was certainly well on a par with what is heard when the 35mm.

recording is reproduced on the average theater's projection system. It proved convincingly that direct 16mm. recording—in the proper hands—can be as good as that encountered in many a 35mm. test.

Thus, despite the fact that these tests were not made under the most favorable recording conditions. The room used for making tests was not designed for recording purposes; it was comparatively small and, despite the hanging of sound-absorbent drapes, and the like, considerably more "live" acoustically than is desirable for good recording.

The standard Berndt-Mauzer double-system recording unit was used. With it was employed a Western Electric cardioid microphone which, due to its strongly directional pickup, proved very advantageous. The Berndt-Mauzer 16mm. camera was used unblipped, with only a single, gaffed "Barney" to insulate camera-noise from the microphone. It speaks very well for both the silence of the B-M camera and the directional characteristics of the cardioid microphone that this was feasible.

According to sound engineer Glegg, however, this arrangement was entirely satisfactory. In a majority of the scenes, he states, no camera-noise was apparent; in a few others, recorded at unusually low volumes, a small amount of camera-noise could be heard through the monitoring speaker, but at frequencies which did not record.

In photographing the picture component of the test, substantially standard 35mm. lighting technique was of course used. However it was found necessary to make some compromises in lighting to offset the differences between the negative processing in 35mm. and the automatically-controlled reversal-processing of the 16mm. In this, as is well known, the flashing or second-exposure light is, in the Eastman reversal-processing system, automatically controlled by a photoelectric cell. For amateur use, this automatic control is a definite advantage, for it can do much to equalize errors in exposure.

But for professional use it was found that this control was a definite disadvantage, as it tended to "print up" scenes that had been intended for key- or effect lightings. Under some circumstances this control can be switched off, and the film given strictly normal, uncompensated processing. Where this cannot be done, the makers of these tests advise the use of lightings that are considerably flatter than normal, with a considerably smaller range of contrast between highlights and shadows.

Within these limitations, however, the substandard tests proved to be a completely accurate guide as to the picture possibilities of the players tested. Gregg Toland, A.S.C., who directed the photography of "The Outlaw," summarized the situation excellently when he remarked, "Granted always that the photography and recording of such 16mm.



tests are handled by adequately skilled professionals, they can be as technically accurate as the average 35mm. test. There is, moreover, the very great advantage of economy on the side of 16mm. In the 35mm. tests made for "The Outlaw," we estimated that the saving, as compared to 35mm., was approximately 95%.

That means we can make much more exhaustive tests using 16mm. sound and picture than would be practical using 35mm. More tests can be made of more players; more footage can be exposed, and more time and care given to the making of each test. And these tests have proven that we can learn as much from 16mm. sound tests as we can from the average 35mm. test.

"Of course, if the tests are to be conclusive, every detail must be handled with the same thoroughness and technical skill that would be given to 35mm. There can be no amateurism in either method or personnel simply because 16mm. cameras are also used for amateur movie-making! But if professional care is exercised, I believe 16mm. sound tests can become a really valuable adjunct to modern production."

Director Hawks is even more enthusiastic. "Really comprehensive tests," he says, "have become an increasingly essential part of preparing for a motion picture. But with today's mounting costs and diminishing returns, the producer or director of the average picture is all too often forced to compromise on tests. He shoots fewer of them, and these he does make are likely to be shoddy and less searching."

"This is natural; when you're faced with the fact of a fixed budget, you hesitate to make a 35mm. test you know will cost from \$500 to \$600 or more.

16mm. is often making a test of Jack Buel and Lucille Ball (Photo by Maurice). On opposite page, two of the 16mm. tests which were Jack Russell and Jack Reed the test in "The Outlaw."

"But if you can make that same test for, say, from \$60 to \$115, it's an entirely different matter! You realize the advantage to be gained—you make that test, and benefit by it. Moreover, savings like that enable you to stretch the amount budgeted for tests to include many more tests than would otherwise be possible. All of us benefit from that sort of economy — producer, director, cinematographer, sound engineers, and, naturally, the players themselves."

There are a number of other, less obvious, advantages to the use of 16mm. sound-film for testing purposes. One of the most important of these is the psychological effect on the player. No actor can help being at least a bit nervous when making a test. So much hinges on it—a covered part, needed employment, even, as in the case of these tests made for "The Outlaw," an entire career. Of course that nervousness hampers the actor, even if he is an experienced trooper and protected by the security of a contract. It can and all too often has so badly frightened an inexperienced newcomer that he can't do nearly as well in the test as he would in the part itself. Of course we try to make allowance for this factor when directing and studying tests, but anything that can be done to minimize the nerve-strain on the test-set is an advantage all around.

"And there's something about the simple fact of using 16mm. which definitely does minimize this nerve-tension. Maybe it's the fact that even a profes-

Continued on Page 494



Filming A Documentary In Mexico

By MARK MARVIN

As Told to Robert A. Kessler

WORKING in Mexico ten months is an experience well worth having. Any preconceived ideas of a primitive and unintelligent country that you might have would have to be dropped if you spent as much time as I did working and living with some of the least educated of the Mexican people.

We went down to Mexico to shoot a story by John Steinbeck, telling of the struggle between modern medicine and ancient Aztec witchcraft which was taking place in every village off the main road, forgotten by the onward rush of civilization. Herbert Kline, maker of the documentary films "Crises" and "Lights Out in Europe," and now a producer-director at M.G.M., was producer-director of our outfit, with his wife Rosa Harven Kline as associate producer, and in charge of still photography. Alexander Blackman, who photographed Kline's previous films, handled the camera. The rest of our

The author, Mark Marvin, acted as production manager during the making of "The Tortuga Village," the extended John Steinbeck documentary film of Mexican village life. He is now in New York, producing short-stories for Glenside Pictures. The film itself is scheduled for early release.

crew were native Mexican technicians, surprisingly well-trained and extremely helpful.

Our equipment was simple. We were limited to a production budget of \$35,000 for our Mexican trip; that had to include a car, extra camera equipment, traveling and working expenses, a Mexican crew on a union basis, and so on. Since we expected to go beyond the reach of power lines, it was necessary for us to take our own generator. We had five Eumecos, of which two had turret lenses, the other three being single-lens, and one DeBrie, all cameras using 35mm film.

Our lighting equipment included none of the elaborate apparatus which generally comes under the heading of "professional." Such a setup would not only be bulky, but would overtake the power of our little generator. We used ordinary photo-floods in simple reflectors, of the type sold for home use. The brilliant Mexican sun, directed by reflectors, furnished enough light for outdoor scenes. Essentially, Mexican sunlight has peculiar photographic qualities, due chiefly to the altitude and the

thin air. Entirely different exposures must be used. We brought along 41,000 feet of film, mostly Plus-X and Double-X, but needed more before we finished. Finally, we had the usual supply of tripods and other standard equipment.

We got down to Mexico in the last week of April 1948, to film some background material. Mexico was preparing for what looked like a bitter presidential campaign, and we thought we might run into trouble, especially on Election Day. We did get stoned and even shot at, but fortunately nobody was hurt, and we got some splendid pictures. Meanwhile we traveled back and forth, in various parties, over the central Mexican plateau, looking for a suitable location, one which was still backward and primitive, still untouched by the recent modernization efforts of the Mexican government.

After some weeks of this, which included some 12,000 miles of driving, we found an ideal spot, within an hour's drive of Mexico City, but off the main roads. Actually, we used several villages in one district, since certain sections of each were better for various scenes.

Our reception in Mexico City, both from governmental officials and from trade union leaders, was more than cordial. The regulations of Steinbeck with his "Grapes of Wrath" and Kline and his European documentaries had preceded us, and gave assurance that we intended to present an honest and sympathetic portrayal of Mexican problems. It was not necessarily desired that we show only the best side of the country; for in fact our story centered around the most primitive and backward part of the population. They merely wanted us to make an effort to understand the people, to present them honestly. Actually, it helped when they learned that we were not from any of the Hollywood companies. There is a definite and justifiable resentment against the way Hollywood has portrayed the average Mexican.

People unfamiliar with Mexico might have expected to meet the traditional Latin snob and "mamam" attitude, but in reality we found less red tape there than we had encountered in offices in our own United States. We started our work, were able to see the right people without undue delay, and were informed of their decisions immediately. It was amazingly simple. Trade union officials were particularly cooperative. Once our purpose was explained, they heartily approved and made every effort to smooth matters out. The union crew that they assigned to us was much smaller than that they would have demanded of a Hollywood company, and smaller, I believe, than they required even of a native company. We were grateful for that, although it is only fair to say that had they insisted on just one more man, it would have been beyond the capacity of our budget.

With that settled, and with our location picked out, the next step was casting. This proved most difficult of all. Our story demanded a backwoods village, out of touch with civilization, which in turn implied that the native Indian residents were illiterate and uneducated. This definitely did not mean that they were stupid or unintelligent. On the contrary, we found them extremely quick to learn. For example, many of these people had never even seen electricity, never heard a radio. Yet within a week two Indian men learned how to connect the generator, wire our lights, and operate the jacked-up car to keep them going steadily.

Casting, however, remained a problem. At first the natives thought acting before the camera quite silly, and were afraid of the ridicule of their neighbors. They were quite willing to be photographed at their work, but stepping scenes before the camera were quite another matter! We were afraid that we would have to wait for some professional actors to finish up some work at their studio before we could start, but while waiting we tried to break down the local prejudice.

The women didn't want their children to set back before the camera, less they should actually become ill in consequence. A great deal of the prejudice, incidentally, was started by some of the richer peasants who were afraid that our standard of pay would spoil the men who worked for them. One village held a mass-meeting to persuade the village elders to refuse us permission to work there. Arguments went back and forth; we were suspected of being government agents who wanted to take the land away, and even of wanting to film the women naked in the church, of all places!

Other peasants came to our aid with arguments no more pertinent. One man claimed that we must be good people because we started work at sunrise, like everyone else, and besides, we had honest faces. Perhaps the most telling argument was that we were always giving the children sweets, or Mexican candies, if they would wash their hands and faces. At any rate, we were allowed to stay.

That still didn't get us our cast. We finally got a good start when we found some natives who had had some contact with progress and civilization. The mother of our story was played by a woman we found selling flowers to tourists, and the father by a man who had once worked as a night watchman in one of the studios, and who was thus almost a professional. A few children were obtained from a Government boarding-school.

We took our cast back to the village, and after a few days of getting acquainted, things became much easier. The villagers saw people like themselves working without harm or shame, and some agreed to help. The most valuable volunteer was the local curandero or

herb-doctor. This was a leading role, and Trini proved a capable actress, and an excellent adviser on local customs.

With the cast complete, we could start to film. At first everyone had a tendency to overact, but after being initiated by Carlos Cabella, our Mexican assistant director, they soon learned to behave naturally before the camera. It was often difficult to get them into the mood of a scene. For example, one important sequence shows a woman in labor. The curandero is applying the ancient Aztec method of forcing the baby out with a shawl wrapped tightly around the mother. The women would start to act, the cameras would roll, and then in the middle, the women would giggle with embarrassment. Doing these things before strange men seemed funny to them. Pleading and scolding didn't help. Finally, Kline asked them to tell us about women they knew, children or sisters or friends, who had died in childbirth. As they spoke, they became serious, the whole atmosphere changed, and they were ready to play the scene. The curandero forgot the cameras and lights and began the ancient Aztec birth chant. The scene became real.

Making a film in Mexico is fascinating work. It must be handled with diplomacy, because the uneducated Indians are far from stupid; they immediately detect and resent any trace of condescension. Treating them as equals, on a man-to-man basis, we found them very friendly and helpful. They saved us from making serious blunders in our representation of folk customs, and were very patient with our attempts to understand.

One very important factor in getting along is an ability to speak Spanish. You need not speak the language well, but you must make the effort. The Mexicans have seen too many gringos coming into their country as if they owned the place, and behaving as if the natives were ignorant neophytes. Some businessmen, many of them Americans, have spent years in Mexico and refused to learn the language of the country. Naturally, this attitude causes resentment, just as it would in our own country, whereas an effort to talk in their own tongue goes a long way in securing cooperation.

We found Mexican technical facilities of high quality. There are two well-equipped studios in Mexico City, which can handle almost any type of production. Laboratory work is first rate. It is slower than in our own labs, but runs nearly as high in quality. The native technicians, cameramen and so on, supplemented by a few Americans working there, are responsible and careful.

Mexico offers scope for picture-taking of wide variety. Mexico City itself is a modern metropolis, with all the problems that confront any large city—crime, traffic, housing, engineering—and almost any drama or comedy can be



Above, an incident in a village square below, blind, one-eyed children around spreading tables, models, characters possible like sun and reflection, provided lighting, bottom, Trini, the herb-doctor, Kline a sick child. On opposite page, filming on location. Top, Hermandad and its Mexican colleague, Angello delgado at camera, in right, Director Kline.

placed in such a setting. Outside of the capital city, there are fascinating subjects for films, both semi-documentary

Continued on Page 494



"Hollywood's Own" Film Unit Volunteers To Film The Navy

By WILLIAM STULL, A.S.C.

A MEMBER of the German General Staff has been quoted as stating that "the nation best equipped photographically will win the war." Still and motion pictures for technical, tactical and historical record purposes, reconnaissance, instruction and public information have become vitally important factors in preparing for and waging modern warfare.

In the present national emergency, the United States Navy is already well on its way to having the strongest and best-prepared photographic arm of any of the world's military services. Thanks to the patriotic foresight of a small group of Hollywood's film leaders, the

Navy has acquired a tailor-made photographic unit composed, not of untrained, or enthusiastic, snapshooters, but of seasoned, studio-trained veterans of professional cinematography, sound-recording, laboratory-work and allied crafts. Close to a hundred of these men are already in active service with the Navy afloat and ashore, and others are awaiting the call to duty, meanwhile training further replacements in saildrift subjects.

The idea of forming "Hollywood's Own" photographic unit for the Navy originated in the fertile cubic mind of Director John Ford, ably seconded by his close friends, Director of Photography Gregg Toland, A.S.C., Screenwriter

A. J. Bolton and Sound Engineer E. H. Hansen. Over a year ago these four formulated plans for their project, and presented them to the Navy Department. When, as might be expected, official approval came from Washington, recruiting promptly got under way for the formation of the world's most remarkable volunteer military unit.

Every man of the organization is a volunteer—and every man a trained specialist in some phase or other of motion picture or still photographic practice! Most of them have, as well, nautical backgrounds of previous service with the Navy or Merchant Marine. Unique it is, too, in that the unit's roster contains no man of "common seaman" rating; due to their specialized training, its enlisted members hold Petty Officer rating as Photographers, First, Second or Third Class, or Chief Petty Officers (Chief Photographers) and so on. Truly, an organization of specialists!

The Volunteer Photographic Unit, as presently constituted, comprises nine divisions, each headed by a commissioned officer, usually of Lieutenant's rank and in most instances an A.S.C. Director of Photography, seconded by an Ensign and a Chief Photographer, and filled with the necessary enlisted personnel. Each division forms a complete camera unit, with men trained in the operation of all types of cine and still cameras, laboratory processing, and the like, with in most instances a full sound-recording crew, as well.

Director Ford—now Lieutenant-Commander Ford—supplies the unit, with Lieutenant-Commander A. J. Bolton as Executive Officer and Lieutenant-Commander E. H. Hansen in charge of the sound section. Among the Division Officers may be mentioned Lieutenant Gregg Toland, A.S.C., Lieutenant A. L. Gilks, A.S.C., Lieutenant Joseph H. August, A.S.C., Lieutenant Allen Bagley, A.S.C., Lieutenant Harold Westmore, A.S.C., and Lieutenant Sol Halperin, A.S.C., and others.

During the past year, the members of "Hollywood's Own" have been undergoing intensive training for their specialized service. Instruction sessions have been held weekly, sometimes on studio sound-stages, and sometimes in the Los Angeles Naval Reserve Armory, for indoctrination in Naval routine, study of technical and tactical subjects connected with their work, and specialized practical training in their cine-technical specialties. In this connection, it must be pointed out that in active service, these men will be expected to be proficient with all of the various types of photographic equipment used in the Service, including not only studio-type Mitchell and Bell & Howell, but newcomb-type Akosky and Wall cameras, Eyemo and DeVry hand-cameras, and the like, and able if necessary to photograph, develop and print their cine-films and stills in the field or aboard ship.

These training-sessions have been interspersed with week-end training cruises aboard the training yachts owned by

several of the members, or put at the unit's disposal, and by carrying out of definite photographic assignments afloat and ashore. Recently, for example, the enlisted men of the unit (who will normally, under the direction of the commissioned officers, form the operating crews of the camera and sound units) were assigned to make a complete film of the mobilization ceremonies and induction into service of the newly-formed California State Guard, held at the Santa Anita race-track.

Working on this "shake-down" assignment with no help from their A.S.C. member commissioned officers, and with only the briefest of instructions, the enlisted camera-crews were sent out to make this film as best they could. The results proved that in these crews the Navy has reared a group of capable photographic teams. Each section "covered" its own phase of the activities, doing so thoroughly and efficiently. The film was processed, and edited into a complete 1000-foot picture, with sound, which is now being shown throughout the state to stimulate recruiting and interest in the Guard.

Cameras, sound and lighting equipment, as well as stage-space and all necessary facilities, have been provided for the Photographic Unit's training activities, without charge, by the studios and by such equipment firms as Paxon Deas, Inc., and others.

The purpose of the Naval Volunteer Photographic Unit is not, as might be expected, to provide a slim nucleus of trained picture-making personnel who could be called to active service and in turn serve to train larger groups of regular Navy personnel. Instead, according to present plans, the personnel of each of the Unit's sections is to be kept together as a unit, and when taken into active service form a complete, mobile picture-making unit capable in itself of taking full responsibility for any Naval film-production activities wherever they may be needed.

At present, close to 100 of the Photographic Unit's officers and men have already been called into active service—mostly there. Lieutenant-Commander Ford and Lieutenant Colonels, Stepler, August, and Wenstrom. While the exact location and nature of their assignments is of course a military secret, it can safely be said that their work has already taken them very nearly everywhere the Navy's far-flung activities warrant the making of pictures. You'll find them in Washington, and at the Navy's training stations in San Diego and Pensacola; in Panama and Pearl Harbor, and a variety of lesser-known places whose names are known only to the technical experts of the Bureau of Navigation, but in which some film-making activity is going on. One crew of an officer and five men has even flown to war-torn England, to learn from first-hand observation how the photographic, and particularly the cinema sections of Britain's Royal Navy

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10. Gregg Island, A.S.C., instructs in camera-operation. On opposite page: A unit sets up for ship-board filming.



11. Harold Wenstrom, A.S.C., instructs in making a model airplane.



12. A. L. Giffis, A.S.C., illustrates a point with a model destroyer.



13. Joseph August, A.S.C., holds a round-table discussion with his section.





A British Camera-Ace Films The War In Africa

By CHRISTIANE BORRADAILE

EDITOR'S NOTE: As more and more of Hollywood's cinematographers are being called to active duty with the photographic armies of the U. S. Army and Navy, there is increasing interest in the activities of wartime cinematographers. A former member of the A.S.C. Oswald B. Borradaile, son of England's most distinguished cinematographer, responsible for the logical sequence of such epics as *Ben Hur*, *Shepherd Boy*, "Oswald's Four Pathos," *Thief of Baghdad*, etc. In now arriving as a cinematographer with the British Army in the Near East. From his wife, the author of this article, we obtained this lively and compelling picture of the activities of a prominent military cameraman.

QUITE a while ago, I remember reading in THE AMERICAN CINEMATOPHILE a query about Oswald Borradaile, my husband. A friend of his was anxious to hear about him. Did my husband then answer, and write that he was somewhere on the other side of the Atlantic, shoot-

ing on such films as "Drums," or "Four Pathos," or "Thief of Baghdad?" I do not know. But now that greater events have temporarily taken him away from the motion picture industry, I feel that perhaps the friend who enquired about him—and perhaps others, too—would like to hear of his activities.

The first months of the war found him still in the studio world of Great Britain's film centers. As all knew, those first months were still months of relative peace for the island, and my chivalrous husband soon held the slow pace of the Home Defense unit which he had joined at the first call. His duties required him to patrol the then most peaceful lanes and fields around our home in England. He said to carry his own hunting rifle, not only to stress

his determination to act in case of need, but also because the Home Defense unit of our peaceful village had but four guns with which to arm forty men. I still suspect that his most sincere wish during these days was to have a chance of putting a German plane, even if it should mean the wrecking of his beloved "den."

It would at least be action, and justify his rapidly striding in the moonlight! But as no such treat was granted, he was delighted to get leave from the Home Defense to help in Holland, where he was assigned to photograph some scenes of "Foreign Correspondent."

Holland was still then a free country. Nevertheless, on his trip to Holland, my husband became a victim of the war. Nothing glorious however, not at all what he had dreamt of! The freighter on which his hired camera equipment was gleefully crossing the Channel was sunk, and a Court of London made him responsible for the loss of said equipment. So this, together with a day in jail when the Dutch became unnecessarily suspicious of a foreign cameraman, has somehow marred his recollections of pre-war Holland!

The picture that took him back to Canada, his native country, was "With Parallel," his last picture as a civilian cameraman, for as soon as his work was completed, he sailed back to England, this time in one of the United States destroyers, the Broadway where he was assigned to make a short, which, however, so far has been kept by the Ministry of Information.

On landing, he proceeded to approach the qualified authorities to enlist—and succeeded. So, as Captain Borradaile this time, he sailed again to Africa, where he had made so many films. A very successful trip as he writes.

"Already, it has been over a week since, and as usual have enjoyed every moment of it, but my voyage by boat is only about half finished, so there is time for anything to happen. We had several alarms for aerial attacks which kept me on my toes as the bridge with cameras all set, but the Germans failed to come within shooting distance. The Captain swears I am disappointed at not having been bombed."

Without any excitement worth mentioning, he landed in Nigeria, thence trickled in Egypt where the headquarters of the Army Film Unit is. After flying trips to Uganda and Aden, he was sent to Abyssinia where he photographed the part taken by Duke Selassie's Regular and Patriot Armies, making a British-made short called "Lion of Judah" which had the premiere in Cairo and which should be seen generally released in this country. This piece of work brought him some military honors, as he writes.

"General Wavell and General Auchinleck shook my paw and congratulated me for 'Lion of Judah.' It is not what the film should have been, but they seemed pleased."

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A FEW months ago Director Ron-
ben Marzouk, writing in *THE*
AMERICAN CINEMATOPHILE, de-
scribed how in directing "Blood and
Sand" he turned to the Spanish "Old
Masters" for inspiration and guidance in
his efforts to picture in Technicolor a
modern Spanish story. He remarked that
a country's painters express on their can-
vases not only the physical form of their
country's scenery and people, but the
spirit—the dramatic mood which is
sensed, rather than tangibly seen, and
which is the thing which more than all
else sets one region apart from another.
He very correctly pointed out that care-
ful study of a country's or a period's
paintings can be of inestimable value
to the director, cinematographer or art-
director seeking to recreate that place
or period in a dramatic film.

But if that study of a land's paint-
ings is helpful to makers of dramatic
films, it is vital to those of us who are
engaged in making short-length travel-
ogues. For our task, as I see it, is not
merely to set up a camera and put on
film a series of moving picture-post-
cards of a country, but to try, at least,
to capture for our audiences something
of the underlying spirit and character
of that region. And painters reflect
a land and its essential character as
no others can. An artist studies his
subject-matter, his set-up, and his light-
ing and color effects with infinite care
and patience. And by close study of
what these painters, who know the
country and its people far better than
any travelling filmer can have seen, we
as workers in "motion paintings" can
not only improve our pictures artistic-
ally, but come closer to reproducing the
emotional character of our subjects.

This may sound like an impractical
theory, but I have repeatedly put it
to practical use in making successful
travel-films. Years ago, while filming
Holland in Technicolor, I began by study-
ing the paintings of Vermeer of Delft
as a guide to all the scenes we later
shot in Delft itself. A scene on the
Dutch fishermen at Volendam was a
direct copy, in motion, of a famous
Rembrandt painting in the Rijksmuseum
in Amsterdam, except that I tried to
translate the subject-matter from Rem-
brandt's period to our own, using the
hardy fishermen of today instead of the
burghers of Rembrandt's time. Other
scenes of Holland's tulip-fields traced
their inspiration to the way other Dutch
painters—contemporary as well as past—
had depicted that phase of their loved
country.

More recently, when last year my
work took me to British Columbia, I
immediately sought Vancouver's Art
Gallery. There I found examples of the
best work of modern Canadian artists.
From them, the faint scenery and the
rusty picturesque localities became an
easy matter of routine in the filming.
They pointed out the true character of
the country and its people as surely as
Bibbels' music points out the character
of his own Finland.



Travelogues Can Be "Motion Paintings"

By RAY FERNSTROM, A. S. C.

There are other things, too, that can
and should be done to make our travel-
films truly "motion paintings." Foremost
of them is probably the use of motion—
not merely motion in the conventionally
accepted sense of the word, but true
cinematic motion which, in the hands of
such outstanding artists as Eisenstein,
Griffith, Julien Duvivier, Ruskin Man-
nahan, Fritz Lang, Walt Disney,
Rheinhold Schunzel, and others, has
made the motion picture a unique visual
art-form.

During the many years that have
elapsed since the motion picture travel-
ogue began to supplant the old-time
lantern-slide "travel-talk," too few of
us who as either directors or cinema-
tographers have been associated with

travelogue filming have recognized this.
The static influence of the still-picture
lantern-slide and picture-postcard still
dominates a majority of our travel
short-subjects. We travel to a foreign
land to make our picture; we equip
ourselves with all the added bulk
and complication of a motion picture
camera—maybe even a 165-pound three-
film Technicolor camera with all its ac-
cessories—because we want to make
motion pictures.

And what happens? Nine times out
of ten we bring back a series of views
of that land which are only the slight-
est degree removed from being still-
pictures! True, the leaves ripple in
the wind, rivers flow, people move,

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What A Modern 16mm Business-Film Studio Is Like

By IRVING B. DYATT

Photomontage by Bill Stealy

IN Hollywood's studios, the general conception of a 16mm. commercial movie organization is that it probably consists of a young man with a home-movie camera, a couple of lights, and maybe a projector. Nothing could be more mistaken; for although such small-scale "producing" units do exist around the fringes of the growing business-film industry, today's major 16mm. commercial producing organizations are becoming in all essential details, replicas of Hollywood's own studio organizations. Some of these actually have better facilities and resources than many an independent theatrical-film producer, though of course the commercial studios work largely, if not entirely, in 16mm.

One of the best-known and most completely equipped of these 16mm. studios is that of the Calvin Company, in Kansas City, which during the past ten years has probably done as much as, if not more than any other producing organization to bring direct 16mm. to its present position as the preferred medium for business and educational movies.

The organization is housed in a single large structure which includes a sound-stage approximately 45,000 feet and completely treated for sound-recording purposes. Not a big stage by Hollywood standards—yes, could have it in a corner of Warner's Stage 33—but quite big enough to house the crews, sets and office interiors which make up the average commercial movie. In this same building are the general office, projection-theatre, sound recording and re-recording rooms, film-laboratory, stock and storage rooms, and a well-equipped machine-shop for maintenance and special mechanical work.

On the photographic side of the organization, only the 16mm. camera equipment would differentiate it from the equipment of a well-equipped Hollywood studio. Instead of the familiar Mitchell, the business-film organization makes use of the Berritt-Mauzer 16mm. professional camera and the ubiquitous Cine-Kodak Special which, due to its practical, convenience and portability has become the universal commercial-film camera. All of these cameras are housed in special blimps, designed and built by the Calvin engineers, when shooting circumstances demand sequences.

The lighting equipment comes from Hollywood's Mole-Richardson factory. "Senior" and "Junior" Solarpats, equipped with CP globes for Kodachrome filming, are used in the studio, and Mole-

Richardson "Climites" are employed for the inevitably extensive location filming in customers' factories, for the same reasons of portability and efficiency that appealed Dan B. Clark, A.S.C., to select them when he filmed the *Duane Quinz* for 20th Century-Fox.

All of the firm's sound-recording is by the direct 16mm. method. A special Berritt-Mauzer studio recording channel has been installed for making sound in the studio. Berritt-Mauzer double-system phones, variable-area recorders are used, coupled through an amplifying and patching panel which would be right at home in any 16mm. major-studio recording department. In conjunction with this are sync projectors, film-photographs or recording heads, and due turntable equipment which permit the use of completely professional recording and re-recording technique in re-recording 16mm. sound-tracks and sound-effects into a final mixed track to give smooth professional results.

I believe that this is possibly the only place in the country where the practice of making an original recording and then using this track for re-recording to produce the final track for printing is used in direct 16mm. production. Anything that is possible in normal 35mm. recording technique (with as yet the exception of multiple- and control-track systems like Fantasound and VistaSound) can be and is done here in direct 16mm. sound, and the results compare favorably with all but Hollywood's best Academy Award 35mm. recording jobs.

Synchronous sound is of course shot by the double-system method, exactly as it would be in a Hollywood major studio. Pre-recorded songs, and the like, filmed to a synchronized playback, and post-recorded songs, sound-effects, music, and so on, are handled in wholly professional routine.

For scoring purposes, a special Robert Morton pipe organ has been installed in the studio. Special music is written for and used on all of the firm's "higher budget" productions. In several instances songs were specially written for use as theme-songs of commercial productions.

The laboratory is an essential feature of the company's activities. It is regarded as one of the finest 16mm. processing-plants in the country. An automatic developing-machine, as complete as any in Hollywood, handles not only the processing of original and dups negatives, positive prints and sound-track, but also

commercial reversal-film processing; it is the authorized processing-station for Agfa-Arco 16mm. and 35mm. film throughout the middle-west.

A prime essential to the production of professional-quality 16mm. commercial film is the availability of printing equipment and skill capable of turning out first-class prints of both sound and picture. To make this possible it was necessary to create a considerable number of special machines which, while they have their counterparts in Hollywood's 35mm. practice, have not been generally available in the 16mm. field.

Among these is a special printer which, like Hollywood's indispensable 35mm. optical printer, enables them to make all types of lap-dissolves, fades, wipes, split-screens and other tricks in the laboratory, with either black-and-white or Kodachrome film. As Hollywood has found, such equipment makes it unnecessary to do this special work in the camera at the time of shooting. It goes a long way toward speeding and simplifying production. Since the Calvin organization has had this printer, it has for the first time made direct 16mm. production as flexible in this respect as the best professional 35mm.

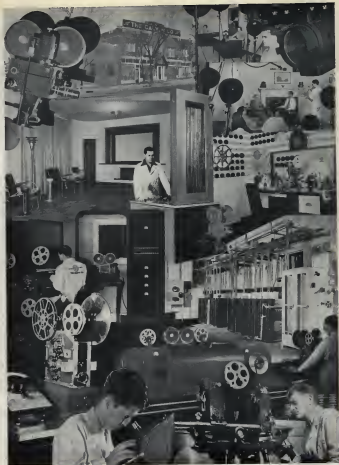
This special printer is used for either color or black-and-white printing, and between recent improvements in film emulsions and the skill of Calvin laboratory technicians, it is possible to turn out color and monochrome dups which show no more contrast than would be seen in any direct contact-print.

Another thing in the Calvin laboratory which should be of interest to all 16mm. workers is the Scanette Testmaster used for making both light-blue and neutral-density strips. Such machines are not uncommon in 35mm. practice, but have been practically unknown in 16mm. The testmaster is of course used for making the control-strips necessary in controlling the processing of sound-tracks and other monochrome film. The light-test mechanism is used in timing both color dups and monochrome prints, dups negatives, and the like. It has proven especially valuable in making dups negatives which are balanced to equalize exposure variations in the original to such an extent that prints from these dups can often go through at a single printer-light setting. This particular instrument was first conceived by Lloyd Thompson and then developed and built by Harry W. Baker, the firm's special equipment engineer.

Equally valuable is the special one-to-one optical sound printer which was built especially for Calvin by the Berritt-Mauzer Corporation. It is used in printing all sound-tracks. This printer eliminates the slippage problem so often encountered in contact-printing, and gives sound-prints from a 16mm. original with practically no loss of quality.

One cannot help wondering how an organization like this one is to be established in the middle of the United States, rather than in Hollywood, New York or

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Aces of the Camera X: ROBERT PLANCK, A.S.C.

By WALTER BLANCHARD

HIDDEN away in the files of the American Society of Cinematographers is a letter, dated some seven years ago, in which an outstanding veteran of the camera profession proposed a younger, and none too well-known cinematographer for membership in the A.S.C. "This man," he wrote, is sincere, alert, and efficient.—a fellow who really uses his head all the time. I am certain that within a very few years Robert Planck will be recognized as one of our outstanding cinematographers."

Today, if you've seen such recent MGM releases as "Escape," "A Woman's Face," or "When Ladies Meet," you'll realize how accurate that prediction was. Those pictures were photographed by Robert Planck, A.S.C., who has in an unusually brief space of time won for himself unquestioned ranking high among the industry's foremost masters of the camera.

In an industry like this, teeming with an oversupply of skilled cinematographers, there must be more of a reason for a success-story like this than the

mere ability to light a set well or to plan effective compositions. In Bob Planck's case, the reason is not hard to find: he has a superlative skill in photographing people. Not merely presenting them in photographically excellent close-ups, but somehow capturing the personality behind the face. You might call him a cinematic personality-painter without being too far from the mark—though he would undoubtedly resent such a press-agentage tag. Certainly he is the exact opposite of the deliberately "arty" type of still-photographer who usually rejoices in a trademark of that type. Anyone meeting Bob Planck on the street would probably take him for a successful doctor or lawyer rather than for the artist he really is.

Planck's entire approach to his work is based on the fact that to him a cinematographer's job is, above all else, the task of capturing not merely the physical appearance, but the personalities of the stars he photographs. "After all," he says, "it has been proven often enough that the foundation of a film actor's success is not appearance alone, nor acting ability alone, but the combination of these qualities with a clearly defined personality. Very few, if any, of our top-flight stars have been flawless beauties; fewer yet have made their success on acting technique alone, unsupported by personality-appeal.

"Therefore it seems very clear to me that a major part of the cinematographer's task is to translate that personality to the screen. This is more—much more—than simply making a photographically accurate reproduction of a person's appearance; you've got to bring out that person's character so clearly that the audience sees and feels it as clearly as you do yourself.

"For this reason, when I'm assigned to photograph a star with whom I've not worked before, I try to make a point of getting acquainted with that player before we start shooting. I don't give much attention at that time to outward appearance; instead, I try to acquaint myself with the little characteristics that make that player an individual person. Knowing these, it is an easier matter, once production starts, to plan my treatment of that player's scenes—especially the closer shots—so that the camera heightens those characteristics. After all, cinematography is essentially a matter of creating a series of personality portraits on celluloid. If you've had any experience with still portraiture, you'll realize that portraiture isn't governed solely by photographic or artistic considerations, but by what the individual portrayed sees in his subject. And no two portraits are likely to see all the same characteristics in the same subject. Every now and again some editor or publicity-man will have some five or six equally capable photographers make portraits of the same girl—and the re-

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Most of Hollywood's cinematographers are safely beyond draft age—but that doesn't keep them from (voluntarily) volunteering their services to the national emergency. Called to the colors for active service with the U. S. Navy's Volunteer Photographic Unit this month are Lucienettes A. L. Gilks, A.S.C., Joseph H. August, A.S.C., Allen Barber, A.S.C., and Hal Westmore, A.S.C. The call caught Al Gilks deep in the interior of Mexico, filming location sequences for *Greta Waller's* forthcoming picture starring Dolores Del Rio. Floyd Crosby, A.S.C., is flying down to take over the completion of the assignment.

Maybe it's going out on a limb, but we'd say William Mellor, A.S.C., has what the male half, at least, of the general public would call Hollywood's most enviable assignment. Just through Technicoloring "Hakaya," with Dorothy Lamour, Billy's next assignment was "The Fleet's In," also with the delectable Betty. He's probably filmed more pictures with the Boring Three than any other cinematographer in Hollywood—some people have all the luck, don't they?

But Billy's getting strong competition from Frans Ploner, A.S.C., over at Caliquia. According to one of the town's better chatter-writers, Lape Velez, starting in Ploner's current opus, starie chick morning off night by playing a great big Mexican kid on the man who keeps her looking lovely in the rushes!

We shouldn't tell this—but it's too good to keep. Joseph Rotenberg, A.S.C., was late to work at MGM's five story the other morning. Reason was that Joe had installed a new lock on the bedroom door the night before, and when morning came, it wouldn't work, leaving Joe and the housewife locked in their second-story sleeping quarters. Joe called the police—then the Fire Department—and finally unearthed a locksmith who refused "rent" to unlock him out. And when the story got out at the studio, Joe accepted for as awful rubbing from almost everybody on the lot. Up to date, no comments have been heard from Headman Mayer or the gate-man—but everyone else on the lot seems to have had something to say about it. And is Joseph's face red—!

Congratulations to Floyd Crosby, A.S.C., who is the very peevish papa of a brand-new baby boy. The new cinematographer-to-be is named David.

Bernie McGill, A.S.C., having a surprise reunion with an old friend, Director Gabriel Soris, up on a visit from Mexico City's booming studios.

Saturday afternoon, night-voice-sings John Arnold, A.S.C., football fan extraordinaire. Johnny finds special delight in getting a seat deep in the heart of the section occupied by University of Southern California supporters—and rooting loudly for the opposing team!

A.S.C. on Parade

Bert Gleason, A.S.C., can lay claim to having filmed what's probably pretty close to an all-time record for long dolly shots. This one, for a shot of marching cavalry in "They Died with Their Boots On," had the camera traveling almost a mile—3200 feet, to be exact. A 1700-yard plank track was laid, and along it sped a light camera-car, carrying two cameras which filmed the scene.

Did you know that the wife of Conrad E. Bernadotte, who before going to England a dozen years ago was an A.S.C. member back in the old F.R.O. days, was living in Hollywood "for duration," with her three-year-old, American-born daughter? With the family funds tied up in England on account of the war, and husband "Barney" on duty in France with the British Army, French-born Mrs. Bernadotte is trying to keep the home fires burning by teaching French. If any A.S.C. members or their families need brushing up in this language, here's an opportunity to help a very charming lady.

Ray Forester, A.S.C., dropping in to the A.S.C. office to say hello while on a flying visit between assignments. He just finished "British Columbia Sports" a Cinecolor short, and hopes north of the border again to do a flying color-commercial for Trans-Canada Airways before starting some novelty shorts of his own in San Jose.

Heads to Henry Sharp, A.S.C.: that copy of Jackson Hays' "American Cinematographer's Handbook" you borrowed from THE AMERICAN CINEMATOGRAPHER'S Editorial desk was the last remaining copy of the Third Edition, so don't forget to bring it back! Besides, it had a very complimentary personal autograph from Jack, which we rather cherish. Anyway, Jackson says the new Fourth Edition will be out in a few weeks now.

Victor Midner, A.S.C., has shots of Technicoloring DeMille's "Ramp The Wild Wind" over, slipping away to Trans for a visit with son Vic, Jr., an Army aviator.

Speaking of intrepid harkans, Warner Bros' "Captains of the Clouds" troupe is back from several months spent in Canada Technicoloring the activities of the Royal Canadian Air Force. Heading the repatriates are Byron Haskin, A.S.C., who directed the location-unit scenes, aerial specialists Elmer G. Dyer, A.S.C., and Charles A. Marshall, A.S.C., and Technicolor-see Winise Brock, A.S.C. Canada's a great country, they report—but the U.S.A. and particularly Hollywood looked mighty good to them when they got home!

Wonder why someone doesn't start

up an A.S.C. flying squadron? Just to name a few of the A.S.C. members who have won their wings, there are, Jack Hock, Dyer, and Marshall, each top-flight camera-and-plane pilots as Bert Gleason, A.S.C., John Falton, A.S.C., Dewey Wray, A.S.C., Bill Daniels, A.S.C., Ed K.P.C.-see Billy Salti, A.S.C., Hal Mohr, A.S.C., Edgar Bergen, A.S.C., Sol Halperin, A.S.C., Douglas Shearer, A.S.C., and a host of others who don't tell us about their flying. And Associate Member Elmer Richardson was a Brooks Field instructor during the last war, and ditto Ted Curtis, a combat "ace" in France and now a Major on active service in today's Air Corps.

Phil Tannara, A.S.C., got a particularly big bang out of a recent request for an autographed picture from a Sergeant in the U. S. Marine Corps Motion Picture Section. Phil was a leather-neck argonaut himself back in 1915, and served with the Siberian A.E.F.

Stanley Corlies, A.S.C., and his charming wife, glimpsed in the Cinegraph sipping a cocktail before going across the street to catch the swell Technicolor job Elmer Palmer, A.S.C., and Ray Remann, A.S.C., did on "Belle Starr."

Glean MacWilliams, A.S.C., Johnny Arnold, A.S.C., and Harry Stradling, A.S.C., at MGM, drop in a discussion of the merits of the new Narwood "Director" meter, commending Ye Ed as a model to show Harry just why the Narwood principle is more accurate than his own reflected-light meter. Harry, by the way, just inked a nice contract with MGM, and Glean has been putting in some time on the lot, himself.

Ariel Vargus, A.S.C., very much on the job in Lisbon, Portugal. He not only keeps grinding out news-shots for Paramount News, but also keeps sending in new subscriptions to THE AMERICAN CINEMATOGRAPHER for friends in the Portuguese and Spanish film centers.

And John Deed, A.S.C., very much the good-will ambassador, doing a great job in South America organizing a comprehensive coverage of Latin-American News for the North American news-reels.

Charles W. Berbert, A.S.C., after a busy summer "Gong Place" in Canada for Universal's short-subjects department, back for a look-see at his Mexican ranch.

John W. Herrmann, A.S.C., F.R.P.S., F.E.R.A., "covering" the recent Army maneuvers in Louisiana for Paramount News, attached to 3rd Army H.Q.

THROUGH the EDITOR'S FINDER

THOSE of us whose daily lives are spent in the motion picture industry are in some ways in an unfortunate position. We are too close to it. We cannot see in its true perspective, the actual grime of our own industry. We know it is a new art and a billion-dollar business. But most of us see only the little things around us—the irritating trivialities, the petty friction and mistakes that are bound to exist wherever the work of many strongly individual personalities must be coordinated. Like the man in the story, we cannot see the wood because the d-d trees block the view.

Once in a while someone says or writes something that can give us at least a glimpse of the grimy human side of what we are doing. Recently one of the leaders of our own industry, Producer Darryl Zanuck, speaking extemporaneously at a Senate hearing in Washington, gave voice to such an utterance. We're often disagreed with Mr. Zanuck, and we probably will again; but his words on this occasion should be read and remembered with pride by anyone who has any part—no matter how small—in making Hollywood's motion pictures, for he was speaking, not only for himself, his company or his fellow-producers, but for every one of us when he said:

"I am proud to be a part of this meeting picture business. I go back and I think of what this little nickelodeon business has grown to and I cannot help but be proud, although I was certainly not one of the originators. But I recall the hours and hours and weeks and months and years—actually years of entertainment—that the people of the world have received from this industry. And it makes me proud. I look back and I am on Wallaby in 'The Little Colonel' in 'The Birth of a Nation.' I look back and see the covered wagons going across the plains in 'The Covered Wagon.' I look back and see John Gilbert in 'The Big Parade.' I see that girl on the truck when he kissed her goodbye—Renee Adoree—and he went away to the war. I look back, and it gives me a thrill when I think of Al Jolson in 'The Jazz Singer.' That was the first time that sound came to the moving pictures. I see George Arliss in 'Dumaine,' and I look back at that small picture after picture—pictures as strong and powerful that they told The American Way of life not only to America, but to the entire world. They told it so strongly that when Gestapo took over Italy and Germany, what did Hitler and his henchmen, Mussolini, do? The first thing they did was to ban our pictures, to throw us out. They wanted no part of The American Way of life.

"I come down, right now, to the last minute, and I remember that great picture, 'Gone With the Wind.' I remember a picture of my own, 'The Grapes of Wrath,' and I remember the last speech of that Joad family. They had been

licked out and benched second and the whole world was against them; they were on the spot. But I remember Mr. Joad turning to the old man in the flannel and saying: 'Well, things look mighty bad and everything is going wrong, Pa. But that's the way it is with the world. You have got to take the good with the bad; and we don't have to worry, because we are the people.'

"I remember those things, and I remember the enjoyment they have given; I remember the laughter and all that, and I am very proud. . . . I am sure that when the whole colossal record is put before the world, the whole world, you are going to agree with the people of America who believe as what they wish to and who stay away when they don't want to see the picture; and we have grown only because the people have let us."

SOME of us, in both professional and amateur characteristics, feel that we're something to complain about during this international emergency. Supplies of all sorts of photographic and sound equipment—even some materials for self-protection—are limited by defense needs; what we do manage to get, we often wait for, and buy at exorbitant prices. Manufacturing and advertising schedules have been pared.

Oh, no doubt, all right. But we can be heartily thankful for one thing: none of the firms which supply our needs has as yet been forced to make the announcement, so often seen in foreign periodicals today, that "due to enemy action, the X—Camera Company regrets it is unable to make further deliveries for an indefinite period." May that time never come!

WE'VE often commented on the crushing load of responsibility borne by the Director of Photography during the making of a modern production. Whatever may be the importance or the cost of the production, whether a "spookie" or a multi-million-dollar superproduction, his is the final responsibility for translating the ideas, effort and investment of all the others into visible form on the little strip of cellobid which goes to the theatres. Traditionally he is the one man in the entire production chain who cannot allow himself to fail. Producers can guess wrong—writers fall down on their scripting—directors mishandle scenes—actors "blow"—and no one thinks anything of it. But the man at the camera must do his work with unflinching precision.

This much is familiar. But it is not so generally appreciated that the Director of Photography is unique in that he must bear his load of responsibility alone. The producer has his associates and assistant producers and the director to depend upon. The writers work in teams, and can always share responsi-

bility with actors who misinterpret or directors who mishandle their scripts. The director shares his responsibilities with producer, writers, cutter and dialogue-director. The players have a host of supporting aids—not only the director, writers, and the like (not to mention the Director of Photography!) but special coaches, dialogue-directors, makeup technicians, hairdressers, technical advisors, and so on.

When in doubt, most producers can say, "I'll leave it to the director—or the writers—or the cutter." The director can say, "Well, I'll shoot it both ways, and let the producer and the cutter decide which is best." The cutter can leave it up to director and producer, and so on.

But the Director of Photography must make his own decisions—though they may affect the shooting of a fifty-thousand-dollar scene or a four million-dollar production—and he must stand by that decision come what may. There is no one in the company with whom he can share those decisions, or ask, "Which do you think would be best?" True, he has his technical crew—his operative cinematographer, his assistant cameramen, his gaffer and electrical crew. But they are there largely to do the physical work necessary in lighting and fixing a scene. They cannot and do not intrude upon the mental side of cinematography—planning the lighting of sets and players, coordinating camera-treatment, lighting, camera-moves, compositions and all to enhance the dramatic mood of the action. This grueling responsibility belongs solely and exclusively to the Director of Photography. Is it any wonder, then, that so many of these men seem prematurely aged by the tremendous nervous and mental burden they bear?

Isn't it possible that perhaps the practice so generally followed in making Technicolor productions, of having two Directors of Photography to share the burden, might be a worthwhile solution to this problem in the making of many of our more important productions even in monochrome? The fact that many pairs of top-flight Directors of Photography have "learned up" successfully and harmoniously, in making Technicolor productions proves that it can be done. The fact, too, that on at least two occasions during the last few years it has been done in the making of outstanding monochrome productions adds to that proof.

We have attended the farewells of all too many outstanding Directors of Photography who burned themselves out prematurely by carrying the tremendous, single-handed load of photographing a modern production. If dividing things into a two-man partnership, with two equally capable Directors of Photography sharing the responsibility for fixing an important production, would help minimize these unnecessary losses to the industry's photographic manpower, wouldn't it be well worth trying?

PHOTOGRAPHY OF THE MONTH

LADIES IN RETIREMENT

Columbia Production

Director of Photography: George Barnes, A.S.C.

With "Ladies in Retirement" George Barnes, A.S.C., turns out a production which is in every way a worthy successor to last Academy Award achievement of last season, "Rebecca." Restricted somewhat by less spectacular settings and a much different mood, the present film lacks the photographic sweep of its predecessor, but it is in every way Barnes at his distinguished best.

The entire production is played within the confines of virtually a single set—a small English cottage—and a single, stage-built exterior, but in spite of this somewhat limited milieu Barnes makes the picture anything but monotonous visually. Aided by the delightfully pictorial settings provided by David Hall and Laurel Barkis, Barnes' compositions and lightings make every scene a pictorial delight. His treatment of the stage-set exterior is striking.

Throughout the picture Barnes makes eloquent use of the increased-depth technique pioneered by Gregg Toland's "Citizen Kane." The production was filmed entirely on Super-XX film, generally at an aperture of f/16, thereby obtaining crisp definition and extreme depth of field. Barnes shows a firm mastery of the new and difficult art of creating three-dimensional compositions for this new-day technique, handling the matter of composition with a delightfully easy hand. In strict truth, it must be stated that Barnes' easiness in this picture gives an impression of greater success than was the case in the recent and very similar "The Little Foxes."

From start to finish a remarkable visual mood is maintained. This is established in the opening title—one of the most unusual seen in a long time, though perhaps a trifle lengthy and repetitious—and the initial production-shot, and beautifully maintained throughout the film's length. Without any suggestion of conventionally obvious melodramatic camerawork or lightings, Barnes invents "Ladies in Retirement" with an uncommonly easy quality which greatly heightens the dramatic impact of the action. Both artistically and technically his effect-lightings are exceptional. It goes almost without saying, too, that his treatment of the players is also familiar. Barnes' photographic achievement is noticeably enhanced, too, by the fine co-operation of the laboratory staff, which provided a print well above the Columbia standard.

SUNDOWN

Walter Wanger Production; United Artists Release

Director of Photography: Charles B. Lang, Jr., A.S.C.

A few weeks ago we were privileged to see a reel or so of the scenes Charles

Lang, A.S.C., filmed for "Sundown." It whetted our appetite, and we felt unconsciously privileged to be able to attend a private, projection-room showing of the whole production in "fast cut" form. It is one of the most spectacular photographic productions of the season. The locations, settings—even the weather—afforded Lang exceptional photographic opportunities; and the way he has risen to them makes one wonder why, indeed, he has so long been buried on routine King Comedy and Bob Hope comedies, when he is still the great cinematographer who was the Academy Award for "Farewell to Arms" and turned out the equally spectacular, though wholly different, "Lives of a Bengal Lancer."

In "Sundown," Lang is seen in his "Bengal Lancer" mood. His camerawork is high-graded, crisp and virile. In the exterior scenes, aided by some of the most spectacular cloud-effects ever screened, Lang's camerawork is sure to win the plaudits of the lay critics. His compositions and lightings are outstanding.

But his interior art, if anything, more interesting. Many of them show an exceptionally interesting lighting technique, combining the smoothness of the old-style non-directional "victorial" lighting technique with all the advantages of the modern directional lighting methods. Some of the lightings, especially of the interiors in the officers' huts, fairly make tropical heat without at any time resorting to the exaggerated, washed-out highlights andinky shadows so often employed to suggest that atmosphere. His effect-lightings, both exterior and interior, are noteworthy, and extremely convincing. His treatment of the players—especially some of the character-lightings on the men—is another highlight of an excellent production.

Lang's treatment of the production leans strongly toward the modern school of crisp definition and great depth of field, without exaggerating this effect. The special-effects work—by Ray Knepp, A.S.C., we believe—is generally excellent, though we recall one or two process-shots which could certainly be improved. The matte-painting in the final sequence (if this is retained in the final release cut) is excellently pictorial, though perhaps a trifle out of key with the mood of the preceding action.

The print we viewed was, so we understood, the work-print. If this was the case, a great deal of commendation is certainly due the Consolidated Laboratory for an exceptionally fine job. We've seen many a major-studio release-print which was less perfectly balanced than this work-print.

BELLE STARR

20th Century-Fox Production (Technicolor)

Directors of Photography: Ernest Palmer, A.S.C., and Ray Bernbach, A.S.C.

When Ernest Palmer, A.S.C., and Ray Bernbach, A.S.C., are teamed on a Technicolor production an outstanding example of fine color-camerawork is assured. "Belle Starr" is no exception. It is an uncommonly fine piece of work, as regards both the interior and the exterior sequences.

The photographic highlight of the production, in this reviewer's mind, at least, was the treatment of the many effect-lit interior sequences, in which Palmer and Bernbach captured the atmosphere of the post-bellum Southern home's candle-lighted rooms more perfectly than we've ever seen them portrayed before. Their handling of the shadow-effects, especially, in these scenes was particularly convincing; there was a softness and depth to the shadows which perfectly captured the desired effect, giving an air of convincing reality and at the same time contrasting perfectly with the mood of the action. At the same time, these lightings are of unusual technical interest, for they appear to be based lower on the Technicolor characteristic curve than any we've ever seen previously. In that connection, there is interesting subject for debate in the way some cinematographers have the practice of making effect-lightings well down toward the toe of the curve, while others prefer to have similar scenes placed comfortably along the curve's straight-line portion. The latter would certainly seem to be the safer course, and probably productive of rather black and a better graphical value; yet the former method, as exemplified by these scenes, certainly could hardly be excelled for pictorial and dramatic effectiveness.

GYANDEV—THE LIGHT OF INDIA

Produced by Prabhut Film Co., Bombay;

Released in U.S.A. by Ram Bagel.

Director of Photography: A. V. Dutt.

For more than ten years we have in Hollywood been hearing about what India's studios and technicians were doing in making movies. Now, for the first time, we have an opportunity to see for ourselves. Ram Bagel, an American-born Indian, has brought to this country a group of the better Indian productions of the last season, and is releasing them to American audiences.

If this film, which we understood, played for nearly a year in one theatre alone in Bombay, under the original title of "Dhyanendra," is a fair sample of what India's creative technicians can do, the Indian Film Industry is to be congratulated highly. Technical faults there certainly are, and concepts which seem strange to American audiences; but when it is considered that the men who made this film do their work thousands of miles from any of the world's other producing centers, and have learned their craft largely by observation and personal experience, "Gyandev" is an

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Australia's Amateurs Shoot A Slapstick Comedy

By JAMES A. SHERLOCK, A.A.C.S.

Photos by Theo Sherlock, A.A.C.S. and Eric Miller, A.A.C.S.

"QUI-ET, please—General Action!"—then the whirring of 15 or more cine-cameras and the click, click of many more still cameras could be heard in a secluded corner of a large Australian Park situated close to Sydney. The only sounds that interrupted these mechanical noises came from the gurgling boons of 50 members of the Australian Amateur Cine Society and a string of Kookaburra birds who also seemed to enjoy the Keystone comedy being produced. These people who were enjoying themselves "On Location" for the first time would not realize the problems that had to be overcome and the hard work previously done by a few serious and enthusiastic members before one frame of the picture could be exposed.

There were three things and people as *Synopsis of Story, Script, Director, Camera-Crew, Players, Location, Working or Shooting Script, Props, Property-Men, Costumes and Script Girl*, to be chosen.

Although other Australian Cine Societies have produced amateur photo plays, members of the parent body working together as a club or in groups, have mostly interested themselves in comedies of the slapstick variety.

The reason for this may be that most of our members realize the limitations of amateur cinematographers in the world of photoplay production; and that our climatic conditions are such that

"Oh Ring Sol," the natural light-source, Messes us with many bright days of sunshine.

When our scenarios contain interior shots, we find they take much longer to film for there are such things as proper wiring and current for our lights to be considered. Also, like most amateurs, we experience difficulty trying to obtain sufficient lighting—equipment whereby a long-shot may be sufficiently illuminated. Therefore, we are most fortunate that our Australian State is Sydney, New South Wales, which has a climate not unlike that of California.

Practical experience with both studio and outdoor amateur photoplays has taught us that there are several risks observed by professional photoplay units that greatly minimize loss of time when "On Location." By adapting some of these to suit our own requirements, we have found that irritating delays are mostly avoided.

Before we go on location, there are many conferences between members of the production unit. These talks are most important if a smooth schedule is hoped for and avoiding conflict of opinions and "post-mortems" between members of the film group on location are to be avoided, and avoided they can be if we prepare and organize.

After we agree on the type of story to be filmed, a *Synopsis* is written, preferably by a person knowing the limita-

tions of substandard cameras and amateur film players. This synopsis is an outline of the proposed film story but does not refer to the camera. It is simply written in story-like manner.

From this synopsis a *Film Script* is formulated, which divides the story into scenes marked in numerical order, camera positions being noted for each scene. A *Director* is now chosen; he should have the confidence of the film group, imagination, and tact; he should be able to lead and inspire people.

There is a lot of pleasure and relaxation to be derived from making an amateur movie when such a person is available, but many headaches and frayed tempers will result among a group of amateurs if the director does not understand the limitations of substandard photoplay production units.

Now we have our Camera crew to select. This bunch consists of a *Director of Photography* (Familiarize me, you A.A.C. Guys), and one or two assistants who help with camera tape-measure, slate, exposure-meter, reflectors, etc.

The selection of *Players* may well be left in the hands of the Director and Cameraman. A little experience with amateur talent photoplays will convince us that it is *TYPES* that are required for the various parts; we are not able to spend hours creating characters with make-up like our professional friends. In fact, most amateur make-up jobs being what they are, the less make-up used, the better our people will appear on the screen. Most cities have Amateur Theatrical Companies or little theaters who are willing to cooperate with a film group; among these folk may be found *TYPES* with a natural flair for acting.

Now we have to look round for a location. If a choice is available, one near home is advised; then the group can start work early and finish fairly late in the day, but we also must make certain, when selecting an exterior location, that the path of the sun in the sky is such that sunlight is available in the morning and afternoon.

If the selection of the location is left to the Director and Cameraman, they will be able to visit the spot beforehand and arrange between themselves where each scene will be shot.

Then a study of the scenario on the proposed location will convince them that much time will be saved if they make a *Shooting Script*, whereby the story or scenario is not filmed in the order of scenes as written by the scenario-writer, but in a sequence more convenient for the production unit. On the opposite page is a practical scenario and shooting script written by J. Frank Brooks, A.A.C.S. A study of this will show why we filmed shots 2, 3 and 18 in that order, also why 2a was added.

Costumes had to be obtained for several of the players. These were hired from a marketplace and theatrical costume company; each person was pre-

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The Scenario The Working Script

COPS, CONVICTS and CUTIES . . .

Scene 1: M.S. Dave and Bill, two convicts who have escaped from prison, still dressed in their prison clothes, are seen dodging from tree to tree. They suddenly stop.

Scene 2: M.S. Keith and Jean, two cuties in bathing costumes, are running towards the river, sea, or pool. In the foreground their clothes are neatly folded alongside a picnic hamper already set out on the grass.

Scene 3: M.S. Dave and Bill hurry towards hamper. Dave picks up the girls' clothes and Bill the food. They turn and scamper off into the bush.

Scene 4: M.S. Two cops are walking backwards on opposite sides of a bush and they bump, back to back. They spin around and start to wrestle.

Scene 5: M.S. Dave and Bill have dozed the girls' clothes and are just putting the finishing touches to their dressing. Bill opens hamper and takes out food and puts their prison clothes in.

Scene 6: M.S. George and Harry, two young men, are walking by the river bank; they see Dave and Bill.

Scene 7: M.S. Dave and Bill are just about to take a mouthful of pie when George and Harry walk up and join them. They both get a shock.

Scene 8: M.S. George and Harry take off their hats and bows. Dave and Bill both assume a very effeminate manner. George takes Bill's hand and kisses it. Bill then gives George a cop push on the shoulder. George returns the push.

Scene 9: S.C.U. Bill pushes George a little harder. George again returns the push with the same force. Bill gives a very hard push.

Scene 10: M.S. George falls over backward and Harry bends down to help him rise. Dave gives Harry a kick in the pants which knocks him on top of George. Dave and Bill both dive on top of them.

Scene 11: M.S. The two cops hear the row and race, then run to see what it's about.

Scene 12: M.S. Dave and Bill, George and Harry are having a rough and tumble.

Scene 13: S.C.U. Bill sees the cops.

Scene 14: M.S. The two cops approach the scene.

Scene 15: M.S. The fight between Dave and Bill, George and Harry stops and the scene is that of four lovers fondly clasped in each others arms. Cops enter scene.

Scene 16: M.S. Cops walk off, after looking with suspicion.

Scene 17: M.S. Dave and Bill watch the cops for a moment and then release their hold on George and Harry.

Scene 18: M.S. Keith and Jean have returned to the scene of their picnic; find their clothing has disappeared.

Scene 19: M.S. George and Harry in a very dazed condition and clothed only

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Location No. 1: Picnic table and tent by river bank.

Scene 2: M.S. Two girls at picnic table.

Scene 3: M.S. Two girls run to sea, river or pool.

Scene 4: M.S. Convicts enter (right), take food and clothes. Kait right.

Scene 5: M.S. Girls return and find clothes gone.

Location No. 2: Bush track.

Scene 6: M.S. Girls searching for clothes see G. & H., then run out of scene.

Scene 7: M.S. Two young men walking along track see girls.

Scene 8: M.S. Two cops regular surprise, then turn about.

Scene 9: M.S. Two cops running. Left to right.

Location No. 3: By rock and tree.

Scene 10: M.S. Fade in. Two convicts appear from behind large rock, or tree.

Scene 11: M.S. Convicts look in direction of girls.

Scene 12: M.S. Both convicts move forward.

Location No. 4: Bush background, small tree in foreground.

Scene 13: S.C.U. Two cops face camera, look inquiringly.

Scene 14: M.S. Two cops bump and wrestle.

Scene 15: M.S. Two cops wrestling on ground.

Location No. 5: Back.

Scene 16: S.C.U. Two convicts behind rock in original clothes worn by boys, view fight with intense enjoyment.

Scene 17: S.C.U. Da., but turn heads.

NOTE: At back of rock convicts' backs will be facing camera.

Scene 18A: S.C.U. Convicts turn towards camera smiling. Swirls change to look of amusement.

Scene 19: S.C.U. Low camera angle. A third cop looking menacingly.

FADE OUT.

Location No. 6: Tree background.

Scene 20: Camera front. M.S. Convicts (Bush dressing in girls' clothes, take food out of hamper, place own clothes in.

Scene 21: Camera front. M.S. Convicts' mouths are full of pie when joined by George and Harry.

Scene 22: Camera left. M.S. Sequences of meeting; allow comedians lots of latitude for spontaneous broad comedy.

Scene 23: Camera left. M.S. Sequence of pushing; conduct as previous sequence.

Scene 24: Camera left. M.S. George falls over H. and bends to help him rise; business of pushing over, etc.

Scene 25: Camera left. M.S. Convicts and G. H. struggling on ground.

Scene 26: Camera front. S.C.U. Bill pushes George over.

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Top: the Author, as located before the girls whose clothes were stolen, ending Scene 2 below, "A policeman's life is not an 'easy one' (Scene 2b)



Remember To Light The Background, Too!

By GEORGE MEEHAN, A.S.C.

for less than you'd have paid for a set of three or four floodlights only a few years ago.

In lighting an average room, begin by studying the normal lighting that illuminates the room in real life. Generally you'll find that the practical lighting-furniture will provide a definite and logical lighting-pattern. If you follow this in your photographic lighting, you're pretty likely to get a natural-looking shot on the screen.

First of all, you'll have to provide a soft, overall illumination to give you some detail in your darkest shadows. This lighting can usually come from two or more floodlighting units placed well to each side of the camera, as high up as possible, and diffused with a screen of white silk or tracing-cloth. These units should be positioned so that their light will not shine strongly on the people at any point in the action. It isn't a bad idea, in setting up this general lighting, to check the illumination with your meter, making sure that it is pretty uniform throughout the entire area of your shot.

The next thing to do is to reproduce the highlights made by the various practical fixtures, like wall-lamps, table and reading lamps, etc. Just how to do this depends, of course, on the requirements of each shot. A safe general rule is to turn the wall-lamps on, and then, usually with diffused spotlights and spot-type sealed-beam floodlights, cast soft-edged spots of light on the wall around these fixtures in a way that reproduces the natural effect, but at whatever higher level of intensity may be needed to suit the film you're using.

The highlights made by shaded table and reading-lamps can usually be reproduced very easily, by simply replacing the regular globes with Photofloods. Don't forget you can vary the effect, too, by using No. 1 Photofloods in some of these lamps, and No. 2 Photofloods in others where you want a more pronounced highlight. Balance the intensities of these highlight-areas with that of your general lighting so that you get a definite highlight-and-shadow effect, yet with enough illumination in the shadows to get a natural amount of shadow-detail.

Then light the people, to get the pleasingly natural modeling you want on

them. Naturally, for a pleasing lighting, you'll want your people illuminated with one highlight side and one shadow side. Plan this so that the highlight-side is in each case on the side nearest some apparent source of illumination in your set-lighting. It is altogether natural, for instance, if you have a shot of a person sitting by a table, reading, and the highlight-side of the lighting on the person is on the same side as the reading-lamp, and seems, at least, to come from it; and it would be completely unnatural if you had the reading-lamp, say, on the left, while the highlight-illumination or "key-light" on your player's face was from the right!

The next thing to do is to make sure that you have sufficient lighting-contrast to make your player's figure stand out from its background. There are several ways to do this. Sometimes you may find the total value of the person's clothes and the background are, photographically speaking, very similar. In that case it is a good idea to provide an outlying back-lighting on the player. This can come from side-to-side spot-lighting units like the "Dinky Indies" or sealed-beam spots—placed above and behind the player. Often you can hang these lamps on the picture-railings that run around the upper part of a room's walls. This back-lighting should be a bit stronger than the front highlight-level.

Sometimes, the player's costume may be darker than the coloring of the back wall. In that case, it is often a good idea to give the wall an additional highlighting, so that the darker-dyed player stands out partially illuminated. This can be done by connecting floodlighting units in the scene, behind the player, where they cast their beams upward onto the back-wall. Sometimes, too, this can be effected by properly-placed lamps above, hung from the ceiling and pointed either straight or diagonally downward along the wall.

The exact amount of light to use will depend on the type of film you are using, and the effect you want, obviously; if you use Type A Kodachrome you will need more light than if you were using, say, Super-XX; and if you are trying to make a night-effect lighting or a harsh, mechanistic effect, you will need less illumination and few

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FROM the studio cinematographer's viewpoint, one of the most glaring weaknesses of most amateur films—and all too many films, commercial pictures, as well, is that in interior scenes the essential factor of background-lighting is neglected. To the studio-trained cameraman, there is a very great deal more to lighting a scene than merely lighting the people and treating to look that the light from these lamps also illuminates the set or room behind them.

For one thing, unless you are working in a very small room or making an extremely close shot where the people are played very close to the back-wall, you cannot prevent the illumination from falling off very sharply; you may have an f-2.2 exposure-value on your people, while only a few feet behind, on the back-wall, the light may have fallen off to a value of f-11 or less.

But what is much more important, lighting a room with "spilled light" from the lamps illuminating your people, you can hardly ever escape getting a flat, unnatural effect on the screen—a sort of "regional gallery" effect which screams to all the world that you're simply set up a pair of lights and pointed the camera button.

The starting-point in getting natural-looking interior lightings is to have plenty of lamps—enough so you can use some for the people, and others exclusively for lighting the room behind them. Today this is not particularly expensive. The "clam-on" type of photoflood reflector units are cheap, and in addition there are the new "sealed-beam" types of photofloods with built-in reflectors for both floodlighting and spotlighting use, in any setting of the available little "pinpoint" spotlights like the "Dinky Indies." You can get ten or a dozen of these various units today

Build Vacation-Film Continuity With "Added Scenes"

By HENRY SHARP, A.S.C.

SO YOU came back from your vacation and discovered you'd left unshot a lot of scenes you needed to make your vacation-movie continuity complete, did you? Well, cheer up—plenty of professional film companies have come back from distant locations and discovered the same thing, too. What's more, they've usually been able to repair the damage—and do it without having to trek expensively back to where those scenes ought to have been shot, either!

The secret is "added scenes." If you made the original sequence right close to the studio, you go back there for your "added scenes"; but if, as is much oftener the case than not, you made the original sequence several hundred miles from the studio, you don't go back there just to re-shoot a close-up in which your star has wadded a line. Instead, you pick yourself a nice, non-essential background—a bit of sky, a tree, a rock, or whatever may be suitable to "double" for the locale where you exposed the rest of the scene, and shoot those missing shots from angles that won't show enough background to give the trick away. When you cut those "added scenes" into the rest of the sequence, they seem, at least, as though they'd been made at the same time and place as the rest of the sequence. Technically I suppose you'd call that fooling the audience; but since it's fooling them in a way that gives them a better show for their money, who cares? Not they, anyway!

Now if this idea works well professionally, in films, it can be put to work just as well by the amateur with his 16mm. and 8mm. equipment. Better, in fact, for the shortcomings of the average vacation movie play right into the hands of this "added scene" trick. Think fast, now—what's the biggest loophole in most vacation movies? Right the first time—lack of close-ups to prove that you and friend were there at the spot where you made those long-shots!

Well, here and there among the footage you did get on the trip you've undoubtedly got a long-shot or two of yourself and f.w. walking aimlessly through the scenery while the other one groused the bastion. Well, those shots "accidentally" the costumes you wore on the trip. Now, suppose you want to get a few close shots to cut in with the

pictorial landscapes you shot. Simply put on those outfits—and make close-ups to your heart's content. Pick backgrounds that might conceivably be part of the landscape surrounding the long-shot.

For example, if you went to the mountains, no matter where you live you're pretty likely to be able to find at least one pine tree that you could use to fill the background of a close shot of yourself or the wife. Use it for the background of your added scenes! In the same way, a rock is a rock, whether you shoot it in Yosemite or in Omaha's Hancock Park, and a sky-and-cloud background is pretty much the same whether you shoot it in Maine or in Minnesota.

If you have some long-shots of you in a canoe or boat on a lake, what could be more effective than a close-up to go with them, showing your face (or the girl-friend's) registering enjoyment, while ripply reflections such as the sun casts up from a lake or stream make a highlight-and-shadow pattern play across the face? You can get the reflections easily enough! Just put a good-sized piece of broken mirror into a large, flat tray with an inch or so of water in it. Use the sun—or a spotlight—for your lighting-tool, and by placing the tray in the right position, and tilting it a bit, you'll get ripple-reflections no one in the world could distinguish from the natural article!

Oh! So you went Dude-ranching this summer, did you? And you want some close shots to match the long-shots (all too short) which took of you when you tried your skill on the quarterback of a bucking horse? That's easy enough! Just get a saw-horse, a saddle, and a stout belt. Place the timber across the saw-horse just the way you did when as a kid you used to make a saw-saw. At one end, strap the saddle. Don your dude-ranch cowpoke-outfit and climb into the saddle.

Now have a couple of husky friends grab onto the other end of your saw-saw and rock you violently up and down. The more violently, the better, if your real horse was anything of a buckaroo! If your camera is placed low on the ground, shooting upward at an angle, you can get some highly effective shots of your head and shoulders shooting up into the picture, and then dropping down out of the frame. If you do your part—waving

your hat in true "ride 'em cowboy" fashion, grabbing leather, and maybe finally tumbling out of the shot as though the horse had spilt you—you'll have some close-ups which, when intercut with the longshots, will give a perfect illusion that somebody had done some mighty clever telephoto work with your camera while you were actually making that brief ride. Shooting these close-shots a trifle below normal camera-speed—say about 12 frames per second—will help. So, too, will a bit of artistic work with a fan and a pan-fall of dust! (P.S. Inter-cutting these close shots will lead the audience into thinking you stuck on the horse a good deal longer than you really did, too!)

Don't forget, too, that the same general idea can be put to work in several other ways, too. For instance, you've shots made from the train en route to your vacation spot, but nothing to show you starting the trip. All right—with the exception of one or two railroads that go in for circus-car coloring, all railroad cars look pretty much alike, and one black pullman looks about like the next. So you can toddle down to the station on your day off and get a fairly close shot of yourself boarding a train. The car will look about like any other (except those tracky streamliners) and most station platforms have a family resemblance, if you don't try to show too much of them. So in nice cases out of ten a shot of you boarding a train in your home town will double creditably for one of you boarding quite a [Continued on Page 918]



There Are Headaches In 16mm Commercial Movies

By ONE WHO HAS HAD THEM

YOU will remember (I hope) that in last month's issue we constructed, with the amazing accuracy of one who has endured it all himself, some of the circumstances which lead otherwise normal people to give up honest work and launch into the making of films, successful films as a business. We traced some of the events which led an unwary money-maker whom we called "The Patient" to decide to take up a career as a producer of commercial movies. And we promised a second installment of revelations of the things which made him regret that he'd ever taken such a step.

The house-lights go down and our story continues. One day soon after, our Patient received a phone-call from a friend. "Come to lunch with me today," said the friend. And our hero foolishly said yes. Of such things is destiny made.

The luncheon was at a service-dish where they showed a 16mm. business film. Nobody was quite sure what the film was about, but it took twenty minutes to show, for which the afternoon's program-chairman was thankful. Afterward, the friend said, "What do you think of it?" meaning, of course, the film. "Fine—couldn't have stood another mouthful," said our Patient, meaning, of course, the lunch.

To make a long story short, it turned out that the friend worked for a firm which had decided to put itself into the big-business class and have a movie of its plant made. The friend had told his boss about our Patient, about seeing the movies that talented young men had made in color. And so the boss, who didn't know anything about movies anyway, had expressed a desire to meet the chap.

When the meeting took place, the boss started proceedings with the logical business-man's gambit: "How much is it going to cost me?"

"Well, er, I don't know exactly," replied our Patient, gazing bewilderedly across a broad expanse of polished desk. "But you must have some idea," exasperated the boss.

Our hero tried to find courage in the thought that he really would know more about movies than the boss, meanwhile casting around in his mind for some clue to what a picture like that ought to cost. All he could think of was the price of film-stock. The boss interrupted his reveries. "Shall we say a thousand dollars?"

Our hero tried to get monosyllabic and hoped his Adam's apple wouldn't give him away if he swallowed. How long had this sort of thing been going on, he wondered. A thousand dollars for a picture that would take about a hundred dollars' worth of film—maybe a little more. Where! He'd be loaded with money in no time! Somehow he managed to produce a nod.

The boss called in a secretary and dictated a memo which both he and the Patient signed. "Get in touch with our advertising agency," he said, handing out two a scribbled name and address. "I've discussed the idea with them and they will help you work out the idea. We have a message we want to convey."

The agency wasn't much help. Besides, they were horribly inefficient; they asked our hero what he knew about making industrial motion pictures. With the project safely sewed up, he conferred with the (to him) logical proposition that making industrial motion pictures was no different than making any other sort of movies. It was just as easy for him to shoot the fabrication of a length of painted rubber-mating as it was to shoot his wife shrimping at the edge of the marl. Perhaps easier.

The advertising experts didn't argue the point because they weren't sure but that maybe he was right. So they told him to come back the next day; to give them a little time to consider how best to present their sponsor's message. Our hero agreed; he wanted time to think things over, too. Not so much the problems that would be involved; rather, he wanted to revel for a while in ignorant contemplation of his new-found agency.

Next day the girl at the agency said that Mr. Oakes and Mr. Decker were in conference . . . would he phone them. He did, and finally made a date for the middle of the coming week.

When the date came, our hero had to remind them all over again about the purpose of his call. Oh yes, their client's motion picture! And what ideas did he have for the said motion picture? He told them he thought that was where they came in. The advertising Roy Braun nodded in agreement. Our hero understood, of course, that the agency would receive its customary 35% commission for its cooperation in this task. He nodded sagely. He had never thought of this angle, but even the \$50 mechanics still looked pretty good.

And so the plot was hatched, and the scenes to be shot were noted down briefly on a piece of paper. Only there was really no plot, and the scenes were just so many views. But our hero didn't know the difference. He had never made an industrial before. And, luckily for his peace of mind at the moment, neither had the agency. But they both learned—

Our hero decided to shoot the exteriors first. Even he had a faint suspicion that the interiors might present some sort of a problem, seeing as how he'd never shot any before. Except that "Glow-ray" said he'd shot the Christmas Bales gave him a Daily Bales.

But never having had to schedule his shooting, getting those simple exteriors took much longer than he'd expected—weeks longer—and much more film. He discovered the weather-man was a very nasty fellow.

When he got around to the interiors, he discovered that plenty of light is needed to shoot Kodachrome interiors—especially when the "windows" is inside a huge, dark-walled factory filled with black machinery. He could have sworn he had enough light that first time. It really surprised him, and the workmen in the factory were visibly awed by the blinding glare of light he used. But there hadn't been enough . . . the results were too, too distressing. Regrettably he decided to throw away about twenty dollars' worth of almost opaque Kodachrome.

Talking counsel with a pal of his who ran a camera-shop, he became convinced that what he needed was a new light-meter. Also, some really powerful lamps. They were appallingly expensive, but he finally discovered a place where he could rent them instead of having to buy them outright.

Several days later he turned up again at the plant, with a load of lights, rented at a fee he'd never figured in the budget, and an assistant. This assistant, for the purpose of the story, we'll call Schmiedel. He knew all about lighting interiors, especially for color. He admitted it.

Schmiedel busily and efficiently engaged himself in arranging the lights for the first shot. When everything was ready, he turned them on. There was a moment's blinding flash, then utter darkness—and complete silence. Throwing the added electrical load of the many lamps onto the plant's already well-loaded wiring had blown all the fuses! The horrible silence of a factory full of inanimate machinery was broken rudely by the imprecations of the plant superintendent. What he said was crude but colorful; at any other time our Patient would probably have taken it for what it was—a work of art in its way. But at that moment, he couldn't appreciate it.

Our hero gave up his lunch-time to scamp around getting those still-blacked up, and another fat slice of his dwindling budget to providing an inde-

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Tips On FILMING FOOTBALL

By JOHN L. HERRMANN, A.S.C., F.R.P.S., F.R.S.A.

FILMING a football-game is one time when you'll get really better results if you pass up the most sought-after (and expensive) seats in the stadium and go in on a less expensive ticket! The best viewpoint for making football movies is a relatively high one, so that you can look down on the play. From that angle your shot will show practically the whole team, while from a lower angle, though you may get closer shots of the players at your end of the line, they'll hide much of what goes on beyond them.

For a variety of reasons, most of us amateur cinematographers place our cameras atop the press-box, which is usually up on the very rim of the stadium. This is all right for us, for we're well equipped with really high-powered telephoto lenses, and accustomed to using them. But if you're going to make substantial movies of football, either for your own pleasure or as an official record of the game for one of the competing teams, I'd suggest setting up your camera about half-way up the side of

the stadium. Many football bowls have little platforms at about this level, just over the entrance tunnels or stairways; and this, as many of the films, professionalists who make slow-motion movies for coaching purposes have found, is the ideal place for filming football.

In the meanwhile, too, we tend rather to over-use our tele-lenses, for it's part of our job to get extremely close, screen-filling shots of spectacular runs and passes by individual players. But if you want movies that will really tell you something about the game, I'd advise you to follow the lead of fellows who make the official coaching films. They choose their lenses so that their shots will show the play as a whole. After all, it may be interesting to see a full-screen shot of some individual star sprouting alone for a long gain; but if you really like football, it's much more interesting to see how his teammates can interfere for him, opening holes

through which he can carry the ball, and blocking out opposing tacklers.

If you intend to cover the game thoroughly, you'll have to have quite a variety of lenses so you can keep this same general angle no matter what part of the field the play may occur. For instance, on 35mm., when the play is in mid-field, close to your own side of the gridiron, a two-inch lens is ideal. For plays on the opposite side of the field, a three-inch lens is necessary.

For plays taking place between, say, the forty and the twenty-five yard lines, a four-inch lens will bring things up to the desired size. And from the twenty-five yard line to the end-zone, a six-inch lens is the thing. Using this selection of lenses (halve the respective focal lengths if you use 6mm.) you'll be able to keep the images of the players pretty consistently the same size no matter where the play takes place.

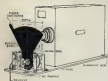
Football is a sport that almost demands the use of at least moderate slow-motion. The super-slow 64-frame speed may

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A moderate telephoto lens which shows the whole play gives the most interesting picture. If you can think out while you shoot cheaper film for the first half when the field is well illuminated (leaves) and better film for the last half when field is in shadow (below).



THE IDEA EXCHANGE



Mechanical Wipe

If you want a professional wipe for your camera and have a yen to tinker with old clock works, then here is what you do.

Obtain an old discarded or broken clock and remove the mechanism. It is preferable to use the mechanism from a small alarm-clock, as they are more compact and lighter. If you don't happen to have one, I suggest the swap shops or the second-hand stores as likely places to find one. Also a motor from a mechanical toy is very satisfactory.

Strip the mechanism of all unnecessary parts, but leave intact one spring and enough pinions so that the winding-key will make about twelve complete turns per minute. It may be necessary to substitute the lost gear so that it forms wind-paddles and thereby slows down the speed.

Mount the motor on a base as shown in the sketch. The base can be made of wood or metal—3/8" masonite works excellently. The motor winding-key should turn counter-clockwise when unwinding and must be in line with the lens. The motor end of the winding key should be about 1 1/2" from the lens far 3mm. camera and about 3" from the lens for 16mm. camera.

The wipe-blade can be cut out of an old tin can with shears. Punch a hole in the blade just large enough to permit it to slide over the winding-shaft. The blade cutting-edges should form about a 60-degree angle and be in line with the shaft hole. The width of the blade at less-bright should be equal to the distance the blade is from the lens. The view-finder should be in such a position on the blade that it can be seen in the view-finder when the blade is in a closed position as shown in the sketch.

Give the blade a coat of flat black paint. Mount the blade on the winding-shaft between felt or leather washers so that the blade can be moved without moving the key and shaft and yet snug enough so that it will not slip by itself. On the bottom of the blade with the aid of the time pointer and a watch, mark the distances the blade moves per second.

A release-trip can be made in a num-

ber of ways. The easiest way is to use a straightened paper-clip or similar stiff wire. Twist it around the frame of the motor so that it presses against the last gear. A light touch will release the pressure and permit the motor to operate.

New to operate the newly-made gadget! Wind the motor and place the cutting-edge of the wipe-blade well out of the field of the lens. It should occupy the same position as the follow edge in the sketch. When ready to make a wipe, push the release and the blade will cross before the lens. As soon as the indicator is seen in the view-finder, the pressure is taken from the release and the blade stops in the closed position. The camera should be stopped at the same moment.

New with the aid of a back-wind, darkroom, or changing-bag, the film is wound back to the point where the wipe began to operate. This is determined by the number of seconds the wipe operated and is indicated by the time pointer and seconds marked on the wipe blade.

As an example, at 15 frames per second, five seconds would indicate that 75 frames or one foot of 8mm. film or two feet of 16mm. film would have to be re-wound. Seven seconds would indicate 1 1/2 feet (roughly 17 inches) of 8mm. film or double that amount for 16mm. If the camera has a frame-counter, you would wind back the required number of frames.

The wipe-blade is now placed so that the follow edge is in the exact position that the cutting edge was originally. The sketch shows the blade in this position. The wipe is now completed by simultaneously releasing the mechanism and pressing the camera operating lever.

The dotted line shows the aim and position of the frame which can be checked by shining a light through the camera lens.

PAUL G. CRAMER

Twin Tripod-head

One of the handiest gadgets I've ever used in my movie-making is the twin tripod-head shown in the illustrations. It enables me to use any possible combination of two cameras—two "lights," two "viewers," an "eight" and a "fifteen," or size and still—with different types of film or brown, shooting simultaneously or alternating, so I can easily get scenes a one-camera man might have to pose up.

It's easy to make, too. Use any convenient piece of 1" lumber, about 18 to 22 inches in length and rounded at the ends. Any camera-supply store can supply you with the nuts that fit the standard camera tripod-screws, and with the screws themselves. For that matter, if you have access to a lathe there's no great trick in fabricating them yourself. Considered one not in

THE IDEA EXCHANGE is just what the name implies—the place where ideas, and even, sometimes, can swap movie-making ideas with the other fellow. The little improved tricks you need to solve one of your cinemaking problems may be just the answer to something that's perplexing a fellow filmer—and one of his ideas may solve a problem for you.

To help out this exchange, THE AMERICAN CINEMATOGRAPHER invites you to send in descriptions of gadgets, tricks, shortcuts and methods you have used in any phase of home movie work—shooting, editing, stringing, projecting, processing, and the like. If possible, send along a photograph or sketch to help make your description more clear to the other fellow. For every idea published in THE IDEA EXCHANGE, we'll give you two projection-cards and cash or their equivalent in equipment or cash. Really unusual ideas will receive higher awards. When sending in your idea, let us know whether you shoot 8mm. or 16mm. to facilitate sending you the right equipment.



the bottom center of your board, to serve as a socket for the tripod's screw. Place appropriate screw and nut combinations at the ends of the board so you can fasten either two cameras or two viewfinders in place. In making up my own gadget, I also incorporated a small spirit-level into the top of the board; this is a great help in getting a level camera set-up.

In use, you can either place the two cameras directly on this board, fasten-

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AMONG THE MOVIE CLUBS

CALLING CLUB SECRETARIES!

This department of THE AMERICAN CINEMATOPHILE is your department. We feel that there is a great deal to be gained all around by making these reports of club activities available to other clubs and to independent cine-fans all over the country. To that end, we ask all you club secretaries to consider yourselves special reporters for THE AMERICAN CINEMATOPHILE with the assignment to "cover" the activities and meetings of your club.

The Editor.

Syracuse Has Film For Exchange Shows

The Syracuse (N.Y.) Movie Makers Association (16mm. and 8 mm.) has been organized for about four years. It consists of forty active members who are interested not only in their own Club's activities, but also in what other Clubs are doing. For that reason the Club offers for exchange showings with other Clubs a 400-foot (silent) film. Club-made amateur film entitled "The Haunted Schoolhouse." The Club expects soon to have other films ready for exchange, as well. Inquiries about showings of these films should be addressed to L. E. Felton, Secretary, 142 Cordage Ave., Syracuse, N. Y.

Recently the Club held an election of officers, with the following results: President, D. L. Conway; Vice-President, A. G. Ives; Treasurer, R. B. Hightower; Secretary, L. E. Felton. The Club is working on plans for a very busy year, with such projects as a radio-program, showings of films to students, and a membership drive scheduled.

L. E. FELTON, Secretary.

Phi Kappa's Make Charity Film

A volunteer production crew from the Philadelphia Kappa Movie Club put in two extremely busy days recently making a 300-foot 16mm. Kodachrome film of activities at a charity boys' camp. Members Frank and Sarah Helminger collaborated on the script, with Leon and Roger as Director, Frank Helminger as Director of Photography, Leon Chaffin, Operative Cameraman and Phil Ornel, Assistant Cameraman. By dint of skilful work by all concerned, the picture was completed within the allotted footage—actually with 18 feet to spare—in spite of the problems of "directing" more than 80 very active youngsters. The picture will be entered in various National competitions and thereafter turned over to the camp for use in publicizing the Camp's activities.

LEE CHALFIN.



Members of the Los Angeles State Club of 8mm Annual Photo. (RR Group) Post-President Al Lorch (right) stands with megaphone, while Photo Chairman Bill Miller (far, in center) acts supervisor.

Tri-City Starts Fourth Year

Starting its fourth year with 60 members and guests present at its September meeting, the Tri-City Cinema Club (Davenport, Ia., Rock Island-Moline, Ill.) opened its 1941-1942 season by setting dates and locations for the season's meetings, alternating between Davenport, Moline and Rock Island auditoriums, and appointed committees including the Program Committee, Tom Gelberg, Chairman; Membership Committee, G. C. Peterson, Chairman; and Attendance, Harold Swanson, Chairman. Following the business session two Kodachrome films were shown. These were "Vacation in Mexico," by Dr. C. S. Costigan of Moline (400 feet Super Kodachrome) and "Scenes Taken from the West Point of the Air," by Leon Zochler of Davenport (350 feet 16mm. Kodachrome).

GEORGIA T. FIRBY, Secretary

Auricon Sound For St. Paul

September meeting of the St. Paul Amateur Movie Makers Club was highlighted by a showing of a 16mm. sound-film made by two Club members—J. E. Lucas on the camera, and Kenneth Henderson on the Auricon recorder. The film was a 164-foot Kodachrome picture of the 1941 Minneapolis Aquatennial. Two-thirds of the footage was recorded by putting the sound on the original Kodachrome after the picture exposure and before development; the remaining 90 feet was recorded by making a separate recording to synchronize with the already-developed picture, then making a composite sound-and-picture Kodachrome dupes. Also scheduled for showing was "Reveille in the Southland" (65-ft. 16mm. Kodachrome, filmed in New Orleans, North and South Carolina, Florida, Virginia and Cuba by Mildred Sherman). The sound-shooting members and the 16mm.-filmmakers are indulging in a friendly competition, each group cooperatively working on a film on "Minnesota." Chairman of the S's reports considerable shooting already done by his group, with the film expected to be completed about December.

AGNES MARX, Secretary.

Long Beach Shows Documentaries

Films by new members of the Long Beach Cinema Club were featured at the September 26th meeting of the Club. Pictures shown were "Haunted House," by Sam Tate; "Hawaii," by Myrtle Adams; "1940 Vacation," by Earl Everly, and "Rose Parade," by Otto Nelson. Reuben of Clarence Aldrich's latest film, "Pass the Corn," were also previewed. Refreshments were served following the meeting.

At the September 17th meeting, G. C. Bernick, of Bell & Howell's Hollywood branch, presented four 16mm. sound-film and spoke on "Proper Use of Equipment." Films shown were "Silver Shadows," "History of the Movies," a colored comedy, and an amateur-produced Kodachrome picture.

The highlight of the Club's September activities occurred on September 23rd when the Club sponsored a special showing of three Government documentary films at the Egyptian theatre. "The River," "The Power and the Land," "The Flow that Brings the Plow," and two MGM shorts on photography were shown. Guests of honor at this showing were Floyd Croody, A.S.C., who donated the photography on "The River," and "The Power and the Land," and William Stoll, A.S.C., Editor of THE AMERICAN CINEMATOPHILE. An audience of close to 1,000 turned out to see the Club's documentary show.

RAYMOND FORSHOLD, Secretary.

S. F. Sees "Souped-up" Kodachrome

The September meeting of the Cinema Club of San Francisco featured an outstanding program of Kodachrome films, both 8mm. and 16mm. S. V. Rothchild showed a 504-ft. Super film of Bryce Canyon; Club-member E. Urquhart screened another 8mm. color-film entitled "A Vacation the Kids Will Remember"; Fred Youngberg screened his "High Sierra" film, and President Drury exhibited a 400-ft. 16mm. film made at the Ice Palaces using hyper-amplified Kodachrome.

JOHN B. SMITH, President.

...THE SHOWCASE...



New Victor Arc Projector

A new Victor product—the Victor Model "E" High Intensity Arc Lamp Projector—has just been announced by the Victor Amnategraph Corporation of Davenport, Iowa. This model was especially designed by Victor engineers for heavy-duty service and to fill the demand for a projector that will produce ultra-brightness of screen images in large auditoriums and outdoor areas. In its construction Victor has retained the fine features that have popularized Victor Projectors in the past. Complete unit consists of Projector, Sound Unit, Amplifier, Speakers (2), Arc Lamp, Rectifier and Projector Stand. Literature containing complete specifications and features of this new projector is now available. Request Form No. 1082. Address Victor Amnategraph Corporation Davenport, Iowa.

RCA Adds 16-mm. Sound Channel at Hollywood

Complete facilities for direct sound recording and re-recording on 16mm. film have been installed in RCA's Hollywood studios. The new equipment records out the complete sound recording and reproducing facilities available at RCA's headquarters in the film capital.

Notable improvements in recording and printing equipment have advanced the quality of contact prints made from directly recorded 16mm. negatives. This together with the speed and economy of direct 16mm. contact printing have led RCA to make direct 16mm. recording and re-recording equipment available.

Built-in Meter on Cinemaster

Latest and most unique feature of the new Cinemaster 8mm. camera and a feature said to be available on no other movie camera at any price is a novel built-in reflector-type exposure meter. Said to ensure correctly exposed scenes, the meter is operated by a control on the side of the camera, a flick of the finger moving the mirror into position inside the optical view finder.

RCA Coating Lenses

As non-reflection coated lenses are coming into increasing use on studio cine-cameras, it is only natural that similar treatment should advantageously be applied to the lenses of theatre projectors. Therefore the fact that the Photophone Division of the RCA Manufacturing Company is commercially treating both projector and camera lenses with a new non-reflection coating known as RCA Magicoat is of timely interest.

The coating method used is a product of the RCA Research Laboratories, and is stated to be very durable and at the same time very efficient. The RCA-Photophone field force will handle the new lens-coating activity; lenses to be coated will be shipped to the RCA plant in Indianapolis, where ample facilities for applying the RCA Magicoat surface have been installed in a special air-conditioned laboratory. The formula and processes used in this system of coating were developed by RCA engineer Glenn L. Dinnick, already well known for his work in pioneering ultra-violet recording and other outstanding photo-optical recording developments.

Dual-Purpose Camera-brush

A useful accessory for dusting the tiny apertures of dust, lint, etc. which inevitably accumulate in the apertures, film-moving mechanisms, etc. of cine-cameras and projectors is the new Gem Beadle-Purpose Cassel-Air Brush, being introduced by the Weimet Co. of New York. It is a surprisingly simple and practical little gadget, a fine camel's-hair brush is attached to a small rubber blower-bulb. The blower roils out small particles that cannot be seen with the naked eye, or may be lodged in otherwise inaccessible places, and the brush picks them up. This novel accessory sells for \$1, and is available through your dealer or from the Weimet Company, 112 West 46th Street, New York City.

New Ampco Catalogue

A new 34 page illustrated catalogue showing their full line of 8 and 16mm. silent and sound motion picture projectors, has been released by Ampco Corporation.



Harrison "Roto-Fade"

Trade-named "Roto-Fade" because of its rotary action, a new manually-operated fading device for substandard cameras has been introduced by Harrison & Harrison. Embodying a disassembled graduated filter enclosed in a lightweight aluminum-alloy housing, the device is furnished with a Duraline Aero-lock ring for positive attachment to any sized lens-barrel up to 10mm. diameter, and a Harrison Dual Stop sunshade which combines the functions of sunshade and filter-holder.

The action of the fading device is essentially similar to that of the familiar fading-glass, with the exception that the graduated fading-glass has been made in disc form, for greater compactness and convenience of operation. In making a fade, the glass is revolved slowly in front of the lens by means of a smooth-working radial arm on the front of the housing. Due to the manual control, fades of any length may be made. The "Roto-Fade" is priced at \$15.

Improved Exposure Slide-Rule For B & H Magazine Cameras

From Bell & Howell comes word of an interesting new exposure-calculator which is now being fitted to the B&H magazine-loading 16mm. cameras. For many years the firm has been fitting press-ported, metal exposure-guides to most of its cameras, but the new calculator is stated to be so much more complete in its coverage of all photographic variables that it may be called a cinematic slide-rule. The new guide compensates for film emulsion-speed (on Weston factors), filter-factors and camera operating speeds, in addition, of course, to the usual exposure-chart factors of lighting, type of scene, season and time of day. With its ability to compensate for these additional factors, the new calculator therefore becomes a useful accessory to many films who habitually use a photo-electric exposure-meter for basic exposure-readings. With the normal exposure taken from the meter-reading, the improved calculator will enable them easily and accurately to determine correct exposure for any filtering or camera-speed.

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is in the negative——*

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of these millions is*

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brilliant best
with*

EASTMAN

POSITIVE PRINTS

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———**DISTRIBUTORS**———

HERE'S HOW

Changeover Cue-Marks

What is the significance of the small, round flash we see in professional movies every so often, located at the upper right-hand corner of the screen?

Vincent Scott

The flashes you see are made by small, round flash-marks, sometimes in the positive print, sometimes in the negative, as cue-marks to tell the projectionist when to change operation from one projector to the other in giving a continuous show. There are usually two such cue-marks: the first one as a warning-signal, the second a few feet later, at the actual point at the end of the reel where the change-over is to be made to the other projector. The same idea can very well be applied to multireel films, and here, pictures. If you intend to present these in continuous shows on two projectors, you will have to use a very small, fine punch, of course, especially with 35mm's tiny frame.

Lighting Babies

I want to make some interior shots with my baby, but some people have told me the strong photographic lights will harm the baby's eyes. What would you recommend for filming a very young baby?

V. Burdick

Several years ago, when Daniel B. Clark, A.S.C., went to Canada to film the then very young Dionne quintuplets in their first movie, "The Country Doctor," he made extensive tests, in collaboration with leading medical authorities, as to the safest lighting to use in photographing babies. He found that Photofloods in dull-drained reflectors, and fitted with "daylight blue" gelatin diffusers, produced no noticeable harmful or irritating effect on even the youngest baby's eyes. So successful was this that Dr. Dufour subsequently insisted on the use of similar lighting by all the renowned cinematographers assigned to filming the quintuplets. The same lighting could be used in black-and-white home filming. For Kodachrome, the blue diffuser would color the light undesirably, and a diffuser of plain white silk or tracing-cloth should be substituted. We would recommend diffused light for filming babies, at all times.

Camera Tricks

I'm planning to make a *Holloway's* home movie, and I want to have a witch do some magical tricks. How can I make things suddenly appear and disappear like I've seen in some professional movies?

M. J. Adams

"Appearances" and "disappearances" are among the oldest and simplest of movie tricks. Use a tripod. Shoot the scene normally, up to the point where you want the appearance or vanishing to take place. Then stop the camera,

at the same time having all your actors "freeze" in their positions. Now remove whatever you want to have vanish, or put in whatever it is to appear. Then start the camera and finish the scene in the usual way. For some "magic" effects, you can vary this by shooting off a small charge of old-fashioned flash-powder (in a safe metal dish) at the point where, say, your "witch" is going to appear. When the puff of smoke from the flash-powder is at its highest, stop the camera as before, and have your "witch" take her place behind the scene-cloth. Then, if necessary, fire off another flash, and start shooting again when the smoke is just beginning to dissipate.

Shots in a Mirror

I've been trying to get a shot of my wife at her dressing-table, shooting over her shoulder to get the reflection of her face in the mirror, like that shot of Linda Darnell in "Blood and Sand" shown on P. 313 of the July *AMERICAN CINEMATOPHILE*, but I can't seem to get her reflection in focus. How is this done?

D. H. Carney

You are probably making the mistake of trying to focus on the mirror itself, which is wrong. The best focus-setting for a reflection-shot like that is the distance from the camera to the mirror, plus the distance from the mirror to the subject's face. For instance, suppose your lens is five feet from the mirror, and your subject is sitting three feet from the mirror. Your correct focal setting for this will not be five feet (the distance from lens to mirror) but eight feet (the distance from lens to mirror to subject.)

"Key Light"

In articles on professional lighting, I often see the term "key light." What does this mean? What is its relation to "key of lighting"?

E. D. Beasock

The term "key light" generally refers to the source of the principal light illuminating the face of the player, or sometimes the principal player, in a scene. The term "key of lighting" refers to the total value of the print, whether it is normal (normally keyed) or tending to darker total values and deep shadows (low-key) or light tones with comparatively little contrast and light, delicate shadows and gradations (high-key.)

Coating Lenses

Would it be possible to have the lenses of my 16mm. Cine-Kodak Special treated with a non-glare coating such as is used by several professional cinematographers like Gregg Toland, A.S.C., and others? If so, where could it be done?

S. R. Barlow

The lenses of 16mm and even 8mm

For many years one of the most important services *THE AMERICAN CINEMATOPHILE* has performed for the readers has been the answering of technical questions about all phases of amateur and professional movie-making. These questions are usually answered by individual letters, to permit going into the necessary detail. However, in response to many requests, we also publish, in abridged form, some of these questions and their answers which we believe may be of interest to other readers. **THE EDITOR**

cameras can be given this coating quite as successfully as lenses for 16mm. cameras, though for the average amateur's use it would probably still be rather expensive. We know of at least three firms in this country now engaged in coating lenses commercially.

Wheels Turning Backward

Why is it that in my movies—and professional ones, too—in shots of moving trains, wagons, etc., the wheels sometimes seem to stand still, and sometimes turn backward?

W. D. Woolsey

The reason for this is that most wheels are virtually symmetrical: one spoke looks almost exactly like the next one. If the speed of the wheel and the frequency of the camera's frame-exposures synchronize exactly, between the making of one frame and the next, a spoke shown in a given position in the first frame has moved just enough so that the next spoke behind it has come into exactly the same position the first one occupied when the previous frame was exposed, and the wheel shows as apparent motion. More often, this cycle is not wholly completed; the No. 3 spoke is caught in the second frame at a position still slightly short of that the No. 1 spoke occupied in the first frame-exposure, in which case the wheel seems, on the screen, to be turning backward.

Title Exposures

Is it possible to use your exposure-meter in making titles? If so, what is the best way to do this?

R. H. Bowen

It is not only possible, but a very good idea to use an exposure-meter in title-making. Simply put the meter in front of your camera's lens, being sure the light from the lamp illuminating your title doesn't strike the meter's cell, and take your reading. If you're working on reversal film with white lettering on a dark card, however, taking a reading directly from the card would probably tend to make you overexpose, since there's more area to the dark background than to the light lettering for your meter to read. So we'd suggest taking your reading with an equal-sized sheet of light gray blotting-paper in place of the title-card, as this gives a more accurate reading.

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EASTMAN NEGATIVE FILMS

Home Movie Previews

16
MM

BUSINESS
MOVIES

HOMIE MOVIES

Sweeney-type "home movie," 100 feet
Reels, black-and-white

Directed by Fred Evans.

Here is one of the cleverest little films we've screened in a long time. When an amateur filmer has the courage to stily poke fun at himself and his hobby, the entertainment possibilities—if the idea is well-executed—are endless. And Fred Evans handles his subject with almost professional skill.

The film begins with the Christmas-present arrival in the "Fumblebum" family of an Iowa movie outfit, the gift of a dating relative. Papa "Joe Fumblebum," already convincing himself a great producer, goes immediately into action. In due time the results are almost ready for the producer—a premiere announced in a well-handled double-exposure marriage sequence, to the family friends with such well-born adjectives as "great," "colossal," "terrific," and so on. Comes the great night of the premiere showing . . . guests due to arrive, and "Joe's" last-minute spelling still under way. But at last the married-up film is unwinded . . . the guests arrive to be seated expertly in the family living room, and the great show is on.

What happens from this point is a beautifully biting satire on what happens at thousands of home-movie showings. A succession of impressive titles worthy of a Hollywood superproduction announce that "Joe Fumblebum presents—A Joseph Fumblebum Production—'Our Family'—starring Mrs. Joe Fumblebum, Joey Fumblebum, Jr., and Joe Fumblebum—Personally conceived and Directed by Joe Fumblebum—Photography, Editing and Titles by Joe Fumblebum—a Fumblebum Production." The subsequent scenes—well, we've all of us seen many an amateur film which failed to live up to its imposing titles—and this "picture within a picture" is the archetype of them all, an inspiring collection of "how-not-to-do-it" scenes. There are garden-hose pars, slipy tripod shots, scenes of the baby in what strangers' feet walk in and manopize the view, scenes where the camera runs down, one made with the clintox upside-down, and of course the inevitable assortment of people looking unpleasant and acting silly for the camera's benefit.

As the show continues, one guest after another slips quietly from his seat and out to the very energetic surroundings of the bar, to the accompaniment of such title-comments as "Yeah, he crashed it all right." As the lighting goes up, proud-filmer Fumblebum finds himself alone in his projection-room and—as a topper—the last trace of his film, which had not been correctly attached to the take-up reel, disappearing slowly

across the floor to where the family kitten is spinning itself in a collared cocoon!

In filming this comedy of cinematic errors, Evans shows himself infinitely more skillful than the hackline "Joe Fumblebum," which part, incidentally, he interprets himself. His story-sense, direction and timing—to say nothing of his editing—are of professional order. His photographic technique, especially in the difficult effect-hybrid interior scenes during the projection, and in the double-exposure marriage, is uncommonly fine. In fact, he shows himself to be everything his fictional protagonist is not.

A WHITTIERLAND TOUR

Historical-documentary scenic, 320 feet
16mm, black-and-white

Directed by Stanley and Maryjane Bean.

This film was obviously made some time ago, when both 16mm and the ruler's conflicting skill were less developed. Nevertheless, it has a basically good idea, and with some oddities and accidents would still be a most commendable picture even in 1941. The heart-meat of the picture was apparently filmed at a historical pageant commemorating the founding of Amesbury, Mass., by re-enacting episodes in the town's historic past. This material is still excellent. If the accompanying scenic shots could be remade with the benefit of the filmers' 1941 resources and skill, and if possible re-filmed here and there by a few staged chase shots to tie in with the historical action, the film's entertainment value would be doubled.

Here and there among the re-enacted historical shots there are gaps in the continuity which could be bridged by added scenic—close shots which could be filmed for the purpose with perhaps a single actor. For example, there is the sequence in which the villagers are attacked by the Indians. In the present long-shot presentation, the first intimation of the attack is when a figure, well in the background, collapses. This could be built up dramatically something as follows: close-up of an Indian bow-and-arrow just as the arrow is loosed. Close-up of the arrow striking the figure. (This could be done with a suitable dummy, or by turning the camera upside-down, inserting the arrow and then jerking it quickly out by means of a length of fine black thread; when this shot was turned end-for-end and cut into the picture, the effect would be of severed action—the arrow striking the man.) Then a close-up of the Indian who shot the arrow, followed, if possible, by a close shot of the second white-man returning his fire with a musket, and so on. With the exception of the latter

(Continued on Page 480)

NO SHORT CUT

Personal-instruction film, 1200 feet
Kodachrome, sound

Presented by Pacific Gas & Electric Co.
Produced by Photo & Sound, Inc.
Photography by Marvin Becker, Recording by George Keefe.

Recorded on Remitt-Meurer 16mm. recording equipment.

"No Short Cut" is the direct antithesis of the recently-released theatrical film "Manpower." Where the theatrical film stressed the dangers of a lineman's job, this stressed the safety provisions made by a great utility company to assure the safety of its workmen under all conditions. It is an excellent job and, in a shortened version, should be almost as useful for the speaker as general audience propaganda as it unquestionably must be in its present form for instructional purposes.

The technical handling of the film is first-rate. There is a highly pictorial opening showing what happens to a venturist's small boy when he tries to take a short-cut home instead of following the less exciting path of safety. From this the film goes directly into a detailed exposition of the safety routines maintained on various types of repair and construction jobs on the firm's gas and electric lines, giving a detailed exposition of the "rule-book" regulations and something of the reasons behind them.

The continuity is excellent; it progresses, with the rather slow tempo best-adapted to detailed instructional films, from the simpler, routine work of P.G. & E. crews up to the more spectacular tasks of maintaining and repairing units of "hot" high-voltage electrical transmission-lines, and finally coming back to the opening sequence, with the small boy finally getting safely through his short-cut, but breathing a fervent "never again" at the forefront.

The technical handling is generally excellent. Much of the footage was shot actually in the field with gas and electric construction and repair crews on the job, and in view of this, the photography is excellent. The camerawork of the high-tension line electrical work is particularly good, especially as most of it must have been shot from precarious viewpoints high on adjoining poles, and making use of telephoto lenses. The internal close-up of the working of some of the equipment are good. This film, incidentally, seems better than ordinarily supplied with detailed, instructive close-ups which are so greatly needed in a picture of this type.

The direct-16mm. sound-recording is excellent, and the music and narration read in all. "No Short Cut" is a film in which both speaker and producer may point with pride.

(Continued on Page 480)



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Home Movie Previews

(Continued from Page 448)

shot, these scenes would not require special costuming, and could be made easily to cut into the existing sequence. The same applies to the later sequence of the soldier and Indian fighting. In this, closer shots of the Indian are vital, as in the existing shot the Indian is so small and distant as to be virtually invisible.

The existing sequence of the witch-hunt episode is excellent, especially the offscreen shot of the shadow of the gibbet.

The sequence of the launching of the

privateer frigate could be greatly improved by a retake, made with the camera in a much lower position—approximately eye-level for a man to the same scale as the miniature ship—and filmed at 64-frames slow-motion speed. It should be remembered that all miniatures, with the rare exception of those representing aerial views, should be shot from a low-height approximating eye-level for a man scaled to the scene size.

The "snowbound" sequence filmed at Whitman's brickplace is exceptionally good; one of the few amateur-made films which really captures the wintry feeling. It could hardly be improved on today.

Here and there are individual bits

where continuity could be built up to advantage by the addition of obvious added shots. One of these is in the sequence around "the bridge which hangs off by chains," in which closer shots of the bridge, and most certainly of the chains mentioned in the title, are obviously necessary.

Business Films

(Continued from Page 448)

CONTROLLING NATURE'S FURY

Sales-technical film (specialized subject). 1047 feet Kodachrome, sound.

Presented by Haliburton Oil Well Cementing Co.

Produced by Ramsey Pictures.

Photography by Arthur Ramsey, R. Y. Rittme and C. P. Parsons; Recording by Lester Tucker; Animation by Ernest Haer.

Sound-recording, 35mm., by Ramsey Pictures; reduction sound-track and Kodachrome dupes by Eastman Kodak Co., Rochester.

One of the hardest types of commercial picture to make is that dealing with a specialized and highly technical subject. If you go into details enough to make it comprehensible to the non-technical layman, the sponsor, fully familiar with the subject, is likely to accuse you of wasting footage on kindergarten elementary. If you make it strictly according to the technical specialist's specifications, you are likely to be well over the average viewer's head. The latter was what happened in this instance. Maybe the film is intended solely for sales purposes among people who know all the why's and wherefore's of cementing an oil-well, and this comment from a reviewer who definitely does not understand the technicalities of oil production is unfair. But the picture certainly does not make it clear why one cements an oil-well.

The opening of the picture, following an excellent opening title, is extremely unfortunate. There are several handsets that devoted to exploring the far-flung operations and resources at the sponsor company; this is questionable practice, at best, for opening a picture, but in this case it is rendered doubly bad by the apparently ordered use of close to a reel of extremely amateurish scenes, made apparently by home movie-making officials of the sponsoring firm. They start the picture off with an incredibly amateurish display of badly focused, fast-paced scenes shot at 16-frames speed on Kodachrome so old and faded only a sickly magenta image remains. Eliminating these first three or four hundred feet badly would improve the picture 100%.

Once the professionally-made part of the picture gets under way, the result is a pretty good picture, though we cannot subscribe to Glassco's opinion. Ramsey's opinion that Kodachrome for dupes should be slightly underexposed. Our experience has been precisely the

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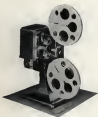
all must team together to give you the kind of brilliant, full-size pictures your 8-mm. movies deserve.

That's just one of the reasons why these Kodascope Eight are so highly regarded by informed connoisseurs. Mechanically, as well as optically, Kodascope Eight are designed to make the most of your movies.



KODASCOPE EIGHT-33 Newest of the new "Eights," the "33" is a smartly finished projector offering maximum projection convenience at markedly low cost. Standard equipment is a powerful 500-watt lamp and lens #2 lens. 300- and 400-watt lamps are available. Major operating controls are centered on a convenient side panel... projection speed is adjustable... motor and lamp switches are independent—you can rest the lamp during the rapid motor rewinding of film... tilting and focusing controls are readily accessible, positive in action... snap-back film gate facilitates threading... a useful carrying handle further aids and comforts handling.

Kodascope Eight-33, complete with incidental accessories, is a far less costly projector than its features and refinements suggest.



KODASCOPE EIGHT-70A This running mate of the "33" duplicates every one of its many advantages, and offers in addition doubled screen shows with every threading. A taller lens and longer reel arms permit the "70A" to take 400-foot reels—a 50-minute show at normal projection speed. For this single reason, many streamliner prefer Kodascope Eight-70A.

KODASCOPE EIGHT-75 This tremendously popular 8-mm. projector incorporates all the advantages of the "33"—and then some. Same lamp setup, but a faster #1 & projection lens which, as part of the well-designed optical system, produces maximum 8-mm. screen brilliance. Three-way control switch marked "OFF," "MOTOR," "LAMP" offers fingertip control of major projection functions. Permanently pre-lubricated major bearings... tilting control at top of pedestal base. The "Eight-75" looks, and is, the finest of the "Eights."



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reverse, that the best dopes are obtained from an original that is still slightly overexposed. The underexposure technique here followed gives high contrast and definition, with heavy shadows and very high color saturation—the latter possibly in this case an advantage, as it shows up the sponsoring firm's five-engineered trucks to spectacular advantage. The scenes in the field are good, with every spectacular angle-shots of the equipment in use among the oil derricks. There are some spectacular twilight-effect shots which deserve special comment. The scenes, early in the "production" part of the picture, filmed in the factory where the cementing units are made, are, if not perfect, at least very commendable work under great

technical difficulties.

The several animation sequences which show what happens in cementing an oil well are a genuinely noteworthy highlight of the picture. They are technically very well done, and tell the story as no other medium could. It is a basic fault of the picture that the film is not speeded by a similar animation sequence showing the faults and dangers the cementing process is designed to cure. A single, short animation sequence of this type would be of more value to the picture than the entire first reel of animation shots now used to boot(!) the company.

The recording, done in 35mm and reduced to 16mm in making the composite color-dope, is excellent. However it

was marred by the apparent necessity of using an executive of the sponsoring company, rather than a professional narrator, to read the narration. The gentleness in question is undoubtedly more familiar with his subject than any announcer could be—but he does not have a voice that is good for recording, and his microphone technique leaves much to be desired. A good part of his words were lost somewhere in the region of his collar, and his low-toned voice would probably have been improved had he been placed farther from the microphone.

The musical score is well-recorded, but badly chosen: it is too staid, too ornate and modernistic musically. As a result, it pushes itself constantly into the foreground, rather than remaining, as it should, a mere background. A more simple and unobtrusive score, played perhaps on the organ, and continuous, rather than intermittent, would be much more suitable.

In all, we would say that "Controlling Nature's Fury" indicates that the Bureau organization can, when given a free hand, do a very creditable job of non-musical film production, but that in this case both they and their product seem to have suffered badly from overmuch supervision from executives of the sponsoring firm who devote themselves into feeling they are experts, rather than indifferent assistants, at movie-making.

Night Effects For Army

Darryl F. Zanuck, Chairman of the Research Council of the Academy of Motion Picture Arts and Sciences, announced the start today of another War Department Training Film. This film on "Operation of a Reconnaissance Patrol at Night" explains the various methods by which patrols may protect themselves and effectively gather information under combat conditions.

This particular film presents very difficult and peculiar technical problems, as it must be photographed entirely in daylight with "night effects" filmed so as to appear as the scenes as having been photographed after dark. Additional photographic difficulties are introduced by the fact that the faces of all of the men appearing in the film are blackened in accordance with usual military procedure to reduce the possibilities of detection by the enemy.

This Training Film will be made for the Research Council by Metro-Goldwyn-Mayer, will be directed by Roy Rowland; Sid Skidmore, Assistant Director; Harry Cohen, Unit Manager; Jackson Rose, A.S.C., Director of Photography; Joseph Roberts, Operative Camera; Richard Dyer, Art Director; Jay Diehr, Film Editor; Charles Walker and Henry Best, Sound Technicians.

The film will be made from a script written by E. Maurice Adler, Charles Greene and John Rockfeller from information furnished by the Army Chief of Infantry.

Major Charles S. Stodter will act as War Department Liaison Officer, assisted by Lieut.-Col. Gordon P. Savage.

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The "Professional Jr." tripod is the most rigid on the market and has many features which are usually found only in regular heavy professional models. For example, it has a wide flanged base to assure steady footing, super smooth action of the friction type tilt head and a pin and tension of gear-arms can be adjusted to the effects of wear and make possible smooth tilt shots.

A sturdy handle swings into the top to control the movements, but for carrying is removed and converted into a stabilizer in the center of the base. Wooden legs locked by a quick release knurled knob can be adjusted for height by a twist of the knob set between each leg. The extended height of the tripod is 80 1/2", low height 44". Top plate can be set for 16mm Eastman Cine Special with or without motor as well as the Ektam 35mm camera with or without motor and 400 ft magazines. It will also take the DeVry 16mm camera. The tripod legs are reinforced to the head to assure steadiness of all profiles.

"Professional Jr." tripods are being used by many leading National agencies, films and news. Based on this for all important work illustrated here is 16mm Eastman Cine Special mounted on a "PROFESSIONAL Jr."



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"WEEK-END IN HAVANA"
Featuring
RUTH HADY GEMMEL
MARLENE DIANE JONES
Director
WALTER LANG
Director of Photography
BENED PALMER, A.S.C.
Studio Chief Engineer
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RAY ANDERSON



New 5-KW lamp
for studio use

MAZDA lamps permit You can slide them in anywhere;

Gen inkies help in Technicolor? "You bet," says 20th Century-Fox, and this scene from "Week-end in Havana" shows how they put G-E Mazda lamps to work.

1. See how they've clustered "inkies" about the table to make the scene sparkle and to pick up desired detail here and there. Then's taking advantage of the compactness in equipment which G-E

even, in some cases, concealing them in the scene itself.

2. Closely allied to this is their flexibility in mounting, for G-E MAZDA lamps burn in any position. You can hang them anywhere . . . above or below the scene or close to the walls to get the effect you want.

3. They offer you versatility which makes it easy to "point with light" to create the effect you want or need. With a daylight filter over General Electric "CP" lamps, your light is color corrected for Technicolor, blends with sun or daylight. Unfiltered, these lamps simulate the warmth of lamp light indoors. While by using standard G-E MAZDA lamps, you can create the glow of daylight. Are you taking full advantage of the help that G-E MAZDA lamps can give to make your pictures better?

GENERAL  ELECTRIC
MAZDA LAMPS

16mm. Tests

(Continued from Page 462)

storal 16mm. camera is so much less bulky and formidable-looking than the 35mm. equipment. Maybe it is because most of us in the industry at least subconsciously connect 16mm. with amateur, rather than professional filming, and accordingly with relaxation rather than work.

"At any rate, there is a greater feeling of informality on a 16mm. test-set. The actors feel less strained. They turn in an easier, more natural performance because of it. They show themselves off to better advantage, and at the same time give the rest of us a much better idea of what they really can do.

"This, incidentally, is based not only on my own observation, but also on the experience of those of my friends who in other studios have made 16mm. silent tests. Our addition of 16mm. sound to the 16mm. picture-tests simply made the test more complete, without robbing it of that very desirable psychological freedom.

"The quality we obtained in the 16mm. sound was a revelation to all of us. Of course it wasn't Academy Award recording—but it was so much better than the sound heard in many an independently-made 35mm. test that I'm sure none of us would have any hesitation about going into a production solely on the strength of what sound tests like these revealed about a player.

"The matter of convenience is important, too. In this case, my office was in the Hughes building. If we had made these tests in 35mm., I would have had to be away from my desk for a much longer period whenever I made a test,

locating the building and driving to whatever studio might be used.

"Instead, these 16mm. tests were shot in an ordinary room located very conveniently in the basement of the Hughes building. When a test was scheduled, I simply walked downstairs and made it, and then was able to return to my office-work in a matter of minutes. This may not seem so important—but when you consider the amount of detailed work that flows through the office of a director who is preparing to make an important picture, you'll find this matter of convenience is a really important factor.

"Convenience in projection is another advantage on the side of 16mm. You don't have to wait until a 35mm. projection-room is clear; instead, you can bring in the conveniently portable 16mm. projection outfit and run and re-run the tests in your office, or in your own or the producer's home.

"I have been told that in some studios 16mm. is regarded as being likely to foster a player in a way that perhaps always be duplicated in the 35mm. production. This may be possible through the combination of the different optical quality of 16mm. camera lenses and the much greater proportionate enlargement when 16mm. is projected. In our case, we were perhaps fortunate in having two of the finest cinematographers in the industry involved—Lucien Ballard, A.S.C., who lit the tests, and Gregg Toland, A.S.C., who photographed the production.

"At any rate, I am glad to have been connected with the making of the first major-studio 16mm. sound tests. From every viewpoint, the use of 16mm. sound-film for this purpose has proven itself practical, and I am convinced that

16mm., used with professional care, can become increasingly valuable to 35mm. producers." END.

Mexico

(Continued from Page 468)

as was ours, and straight story-telling. The struggle between ancient superstition and modern science is a story of many aspects. The episodes established by the Mexican government for Spanish refugees could be the basis for other stories.

The Mexican studios have actors capable of handling even principal roles, and many of them speak English well. As a matter of fact, the charming Mexican accent would be no handicap to a picture set there. With the use of a few "name" stars as leads, and with Mexicans for the other parts, a picture could be made that would be of great interest to an American audience, and have good money-making possibilities as well.

If national distribution is arranged in advance, half of your problems will be solved. Independent production finds its chief difficulty in distribution. If that is taken care of, and if you bring down a story that treats Mexican problems and characters honestly, you will have a fine opportunity to make a great film, and incidentally, you will be doing a great deal to promote solidarity and friendship between the United States and her sister republic below the Rio Grande. END.

Navy Photo Unit

(Continued from Page 467)

and R.A.F. carry on their work under grim wartime conditions.

Back in Hollywood, despite the sailing of the cream of the unit's crew to active service, a healthy organization remains. Several fully trained and organized photographic divisions remain, together with such officers as Lieutenant-Commanders Bolton and Hansen, Lieutenant Toland, and others. These, for the present, will remain to recruit the unit's new men to full strength, whipping further crews into shape as they are recruited. In this connection it may be mentioned that while the Photographic Unit has, so we understand, something of a waiting-list on the photographic side, there is a definite need of qualified sound-engineers. Contrary to the general impression, it appears that a surprising number of Hollywood's recording engineers are men older than the average cinematographer, or otherwise not qualified to meet the Navy's physical requirements.

That is, to date, as much of the story of "Hollywood's Own" Volunteer Naval Photographic Unit as can yet be told. Once the present emergency is over—whether it brings war or peace—we hope the rest may one day be related. But even in the present form, it is an inspiring story. What else can you call it when

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men like these—most of them safely beyond the age when the draft would affect them, many of them veterans of the last war, voluntarily give up jobs and salaries of the sort paid to the industry's top-flight Directors, Directors of Photography, and recording engineers, to serve their country wherever they may be called to make tactical, instructional and public-relations films under the most exacting of field conditions? Hollywood—and the country with it—may well be proud of the industry's democratic contribution to National Defense! END.

War in Africa

[Continued from Page 448]

Of his trip in Abyssinia, he writes:

"My letter reaches me here in Addis Ababa. Yes, we have the Little Men safely back on the job—and what job he has on his hands, poor little fellow. I do not carry him and his task. If, when this damn war is over, you would like to visit this country, we shall be welcome, even to the extent of making a film. And what a film could be made here, a wild dramatic people in a wild dramatic country! I am looking forward to the day when the German air force is like the Italian air force in this part of the world: nothing but burnt-out wrecks on every field, and none in the air. A grand job done by a handful of men, many of whom I have met."

His work completed in Abyssinia, he paid a flying visit to the beleaguered garrison in Tobruk, about which he writes cautiously:

"Don't ask me how I got there for when an army is cut off and surrounded without hope of escape (the latter according to Lord Blaw-Blaw and the rest of his German pals) one should not be allowed to do such things. But this last trip—interesting if not comfortable—has surely convinced me that the Germans will never win and that the Empire is full of damn tough men."

That done, he followed the British troops to Syria, from where he writes:

"The spending my birthday is happy, and what a lovely place it is. We were among the first officials to enter the city, a day before the troops entered. What a welcome we received, and how the French are divided. It will require a great leader to unite France into a solid nation after this foolishness is all wiped up, but rise again the will, a wiser France, but still then she must suffer. Poor France! Britain is also suffering for her soft years, but it is a different suffering, easier to bear. We find the Christians here very much for us and anti-axis, while strangely enough the Mussalmans are rather reserved. They have been pumped full of German propaganda and want to wait and see. This country is very much like Southern California, but instead of the blue Pacific, there is the even bluer Mediterranean. Deman-

cus, the most often-censured of all cities, just seems to take it as another day.

"I made a rapid tour of Palestine before coming up here, visiting Bethlehem, Nazareth, and of course Jerusalem.

"I have nothing but admiration for the new Jewish spirit, for those people, most of whom have been thrown out of European countries, have really gone to work when given a chance in their new home. I have never seen such well-cared-for orchards and farms, and fine clean shops with attendants who meet you with a smile and give you a cheerful farewell whether you have made a purchase or not. I have met settlers from Poland, Germany, the United States, and other parts, all cheerful."

This last letter brings his mail to date, and therefore, so far, I do not know what his latest activities have been, though I presume that he was sent to Bren. END.

Motion Paintings

[Continued from Page 448]

sometimes the camera may even be passed or tilted a trifle. But in nine cases out of ten the actual results on the screen would not be materially changed if we clipped a single frame from each scene and projected the clippings in a miniature projector.



Such a travesty is emphatically not

a motion picture in the dramatic-feature sense. It is all very well to say that it is about all that is possible under the travel-filmer's field conditions; but that argument hardly holds water. There are plenty of simple, well-known cinematic principles which can be applied in the field to inject cinematic motion into almost any type of scenes.

For example, an intelligent combination of camera-angles and cutting can make even an actually static subject take on an illusion of life and movement on the screen. One of the best-known mistakes of this is the example cited by the well-known Russian cinematographer, Vladimir Nibon, in his book "The Cinema as a Graphic Art," where he describes the precise cuts and compositions necessary to produce a screen effect of an equestrian statue rearing up and plunging forward to crush a character beneath its stone hoofs.

Another invaluable aid is the use of the moving camera. The travel-filmer in the field hasn't the elaborate cranes and dolly equipment the studio cinematographer has, but he can in many instances improvise very acceptable substitutes. He may not have to use the makeshift that Charles G. Clarke, A.S.C., employed some years ago when in making a silent-picture sequence on a railway-train, the director suddenly called for a moving-camera shot along the corridor of a coach. In that instance, Clarke stopped the train at the first town, bought a child's coat-

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er wagon, and rode it, Eyemo in hand, to make the shot. In another instance a cinematographer of my acquaintance, needing a dolly-shot while making a traveltogue in Yellowstone, borrowed a two-wheeled automobile leaving dolly from the park garage, and hulk on it a wooden platform strong enough to hold him and his kopeck-equipped Mitchell.

But today's travel-flier almost always has such resources as automobiles, motorboats, airplanes, and the like, and running-shots made from them will add motion to many a scene.

A moving camera, directed at otherwise static objects from a quarter angle will, in addition to the fact of motion, create an illusion of almost stereoscopic depth and roundness. In the same way, if the camera is moved spirally around a static subject, the differential movement of the various planes of the composition will give a strikingly three-dimensional effect. By using these methods on static scenes I've found it possible to keep a feeling of motion at all times without destroying the artistic values of any desired composition.

We recently proved that this type of moving-camera technique can be applied to traveltogues even when far from the usual confined circumstances. We were making a fitting sequence for a recent color-shot on British Columbia sports, deep in the heart of the British Columbia mountains. Building an improvised catamaran from a pair of rowboats, lashed together and covered with a platform, we made a floating dolly which, powered by a quiet outboard motor, gave us the necessary motion in what would otherwise have been a rather commonplace traveltogue scene.

In short, combining these basic principles of seeking the character-interests

tation of a land through a study of its contours and translating them to the eye-camera's colored ribbon with an understanding application of the fundamental laws of cinematic motion and tempo will, I am sure, do much to lift the traveltogue of tomorrow out of the "picture-postcard" class and make it a genuine piece of cinematic art—in all truth a "motion painting." END

Business-Film Studio

(Continued from Page 478)

Chicago. It was started some ten years ago, about the time when Forrest Calver and Lloyd Thompson were emerging from the University of Kansas. Calver finished school first and was out in the business world getting practical experience; Thompson, still finishing his college studies, found the motion picture bag biting harder all the time. Before Thompson had finished his last year in college, he and Calver had decided to start an organization for the production of direct-16mm. commercial movies.

At that time it was their plan to produce only silent pictures, for practical 16mm sound was still in the experimental future. But of course it soon, sound came along in due time. Though there were many who said it couldn't be done, Calver and Thompson determined to produce a sound picture by the direct 16mm. method and prove that it was practical. They believe that they were the first ones to produce a feature-length production of this type, making use of offstage voice, lip-synchronized dialog, sound-effects, music and so on.

That was several years ago. Since that first entry things have taken place. Due in no small part to their efforts, and those of a few equally far-sighted pioneers like them, direct 16mm. as a

business-film medium has definitely arrived, both commercially and technically. Their pioneer organization has arrived with it. Today there is a permanent staff of 18 people, including laboratory-men, machinists, cameramen, sound-men, directors, writers, salaried, advertising experts, and the necessary clerical and labor staff, with additional, specialized personnel—engineers, actors, technicians, and the rest, "on call" when their services are needed.

Today, these 16mm. pioneers are still pioneering. Devoted heart and soul to the business and technical possibilities of direct 16mm. as the ideal medium for business films, they are bending every effort to advance the business technically, and to stabilize it in a business way. As an example of this, they have been the first to recognize that in business film production they are dealing with men who are not accustomed to accepting all the variables which make the costs of motion picture production—theatrical or commercial, 16mm. or 35mm.—subject to such great variations. Accordingly, they have worked out price schedules which, like Hollywood's unofficial but accepted classifications of "A" productions, "B" productions and "quickies," enable them to set a business-like price-tag on each type of production and other service they offer, and bid as accurately in that schedule and budget as does Hollywood's Bryan Fey or any other top-flight program-film producer.

And their production technique is constantly advancing, keeping step with the advances in 16mm.'s technical resources. In one film produced last fall for an insurance company, the Calver organization turned out a production which, they rightly feel, embodies an unusual number of "firsts" for a direct-16mm. production. The film was a 100% synchronous show in sound and color, and was far appreciably one hour. So far as I can determine, this was the first all-color, all-synchronous 16mm. sound production to be produced throughout by the professional re-recording technique.

The film was called "Once In A Lifetime" (no relation to the play!) and a song by the same name was written to be used as the theme-song of the picture. During the story, the heroine sang the song, which was dubbed in to a pre-recorded playback as is the custom in Hollywood. The film was completely re-recorded, and optical trick-effects were used throughout the production. In other words, for what is perhaps the first time, the whole of Hollywood's best picture and sound technique was applied to the making of a direct-16mm. picture—and applied as successfully as would be expected in any but the finest of Hollywood's major-studio "specials." In fact, many an audience, seeing this film projected on a theatre-size screen with modern 16mm. cine equipment, has left the showing pleasantly convinced it had seen a 35mm. Technicolor production! END

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Bob Plank

(Continued from Page 472)

who will usually be so highly individualized that they might very easily be taken for pictures of as many different girls.

"But—especially in cinematography—this individualized treatment should never be allowed to become stylized to the point where the individuality of the player is subordinated to the individuality of the cinematographer. Personally, I would hate to have my work become so individual that a person could see two unrelated close-ups of two different stars screened one after the other, and exclaim, 'Bob Plank must have shot those—and didn't he do a lovely job!' Such a comment would be flattering, I'd admit. But I'd much rather have these remarks that they'd never seen Norma Shearer look so fresh and youthful as she did in that first one, or Bedy LaMour so alluring as she seemed in the second—seeing in each case only the personality I had tried to picture, and completely forgetting the part that either the camera or Bob Plank had played in putting those two presumably portraits on the screen!" END.

Aussies' Comedy

(Continued from Page 474)

vividly fitted for their costumes, just to ensure that there would be no misfits. Our property-man was then given the costumes. It was his job to see that all fancy costumes and incidentals, such as custard pies, were on the set when required.

Our property-man was very busy when the great day arrived. He must have been on the set hours before we because he had a tent erected when we arrived and had mailed notices on trees informing us where to leave the main road for our location. Another job this stalwart did was to keep a slate with the number of each scene marked on it in front of each camera before every shot. By this method we were able to quickly select each scene when editing the film.

To make sure that players arrived on the set correctly attired, we elected a Script Girl who also marked on the working script each shot as it was filmed. Then before packing up, we were able to check these marks and make sure that each shot had been taken.

The accompanying scenario and working script was filmed by members of the Australian Amateur Cine Society in five hours. We had many copies of these photographed so we could hand one of each to every cameraman and player a week before our outing.

This film story is quite complete and practical. It could easily be adapted to suit local conditions by most cine-camera groups, and although our film is far from International Competition standard, it still would not disgrace any screen; in fact, in these days when the very

heavens are falling on some of us, films of this type are particularly appreciated.

We commenced work on location one holiday at 9 a.m., stopped for a picnic lunch at 11 a.m., then at 1 p.m. we started again, and finished in time for afternoon tea, a friendly chat, and a bottle of beer at 4 p.m. The reason for our early lunch was that we wanted to seize the overhead sunlight between 11 a.m. and 1 p.m.

Shooting these 30 scenes in this length of time is, as any amateur who has tackled a scenario film will realize, very creditably fast work; but it was assisted by one member of the Society, Allan Burgess, who not only filmed the picture, but processed his film himself and had his version of the production, completely edited and titled, on the screen at the Society's meeting the following evening! There's a record for such home-processing enthusiasts as Raymond Fosholt, of California's Long Beach Cinema Club, to shoot at!

Those more advanced in Cinematography will notice that there are too many medium-shots mentioned in the scenario. The reason for this was that we expected many cameramen and as each close-up would take about five minutes per camera, we decided to standardize on camera positions whereby many cinematographers could have one shot at each scene. This did not prevent those among us with turret cameras using our 2" and 3" lenses for close-ups.

One last suggestion, don't make arrangements for the gang to meet on a street corner; some are sure to be late and cause anxious members to start the day in a bad humor. On location is the place to meet. END.

Scenario

(Continued from Page 477)

in their underpants are struggling to rise. Settled about them are portions of the girls' clothing and a pair of slippers is tossed over the bush and falls on George's head.

Scene 20: M.R. Kath and Jean, walking along, searching for their clothes, see George and Harry, who is their direction.

Scene 21: M.S. George and Harry have risen and have gathered the girls' clothes together.

Scene 22: M.R. Kath and Jean rush in and start kinking and pulling George's and Harry's hair.

Scene 23: M.S. The two cops hearing the din rush about and run.

Scene 24: M.R. Cops arrive and without asking questions, start into fight.

Scene 25: S.C.U. Dave and Bill watch the fight from behind a tree.

Scene 26: M.R. Kath picks up custard pie to aim at Harry but misses him. Bill up, etc.

Scene 27: S.C.U. Dave and Bill turn; expression alters from smiles to look of amazement.

Scene 28: S.C.U. Very big cop with

serious expression looks down on Dave and Bill.

Scene 29: C.U. Two cops (unconscious) sitting on grass back to back, covered with custard pie. FADE OUT.

Working Script

(Continued from Page 477)

Scene 13: Camera front. C.U. Bill sees cops.

Scene 15: Camera right. M.S. Fight stops, scene of four lovers. Cops enter scene.

Scene 16: Camera right. M.S. Cops walk out of scene.

Scene 17: Camera right. M.S. Cam-

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while wait for cops to get out of sight, then start to forcibly remove clothing.

Scene 16: Camera right. M.S. G. & H. in underclothes, very dazed with wetter girls' clothes scattered around them.

Scene 21: Camera right. M.S. G. & H. start picking up girls' clothes.

Scene 22: K. & G. rush in and start looking.

Scene 23: Camera front. M.S. Two cops rush in to fight.

Scene 24: Camera front. M.S. Kath picks up pee to aim at H., misses and hits a cop, then six players conduct a pre-throwing episode.

Location No. 7: Tree background.

Scene 25: M.S. Two cops lying on ground unconscious, and covered in casted pee. FADE OUT.

Lighting Backgrounds

(Continued from Page 478)

light-sources than if you're playing for mere normal effects. And if you are using a contrasty film, you'll want to light with less contrast—a narrower ratio between highlights and shadow illumination—than you would with a film giving a soft or flat contrast.

In general, too, I would be inclined to advise that you light your scene as simply as possible, even if it gives you more illumination than you really need if you're to use your lens at its widest opening. After all, there is no law that compels you to use an f/1.9 lens at the largest aperture—and there is a great deal to be gained by stepping the lens down to a smaller opening. You'll find that scenes shot at smaller apertures will give you better definition, greater depth of field, and more snap and sparkle than is possible with "wide open" shots. That, of course, was one of the secrets of Gregg Toland's remarkable work on "Citizen Kane"; he shot nearly all the interiors at apertures of f/11 and on some scenes even stopped to f/16 and f/32. That, of

course, is out of the question for home movie-making, so it would demand far too much light. But you can improve your interiors—especially the Kodachrome ones—by shooting them with the lens closed down a stop or two below its maximum aperture.

Finally, if you want to improve your lighting of interior scenes, go to your neighborhood theatre and study the interiors you see on the professional screen. Especially, study the lightings you see in "B-pictures" and the serial-type "family" films in which so many scenes are laid in sets representing the rooms of ordinary American homes. If you will study what the professional cinematographer does in these scenes—not the spectacular effect-lighted ones, but the simple, "run-of-the-mill" interiors you seldom notice otherwise—you can pick up innumerable pointers that will help you in lighting your next interior scene in your own home. Try it! END

Added Scenes

(Continued from Page 478)

different types at Ruston's Old South Station—or almost any other, for that matter. You can often work the same trick with slickers, busses, and the like, and sometimes even with boats. And of course if you drive, well, a close shot of your car's wheels rolling along a highway near home can double for highways in almost any other part of the country—as can a close shot of you or the wife loading or unloading the luggage. Shots like that are great continuity pepper-poppers.

If you missed some of the scenic lamp-shots of a famous place, due to bad weather, that's still no reason for being discouraged. Just get some good stills of the scenery you missed—in color from a travel-finder, if your reel is in Kodachrome—and put it into your title. Slide the still slowly sideways or up or down as you shoot, and you'll get a surprisingly good illusion that you panned

the camera. Be sure, of course, that you pick stills with no people, traffic, or other visually moving objects to give the trick away!

If you're a very powerful makeshift projector, you might even be able to get away with a small-scale process-shot. Project a slide of the desired background onto a small translucent screen big enough to serve as a background for a close-up of a person, photographing both the person and the projected background with your cine-camera. In trying this trick, you'll have to balance your exposure and lighting carefully—always light the actor from the sides and above, keeping all light off the screen, and making sure the direction of lighting is the same as that shown in the background-picture—and you'll also have to take great pains to coordinate the viewpoints and perspective of your foreground camera and the background picture; otherwise the result will look phony on the screen.

So, if you're caught short on some of these scenes you really need to round out the continuity of your vacation picture, try filling the gaps with some "added scenes." After all, within sensible limits a tree is a tree and a rock is a rock, regardless of where you shoot them—and close shots made at home can give a perfect illusion of being shot with the rest of your vacation scenes if you only use a little imagination in shooting them and cutting them into the rest of your picture! END.

Commercial-Film Headaches

(Continued from Page 480)

pendent power-line to feed his lights. They were all ready to shoot again when two advertising men and a plant engineer blew in.

"The shot you're taking," they told him, "won't mean a thing to the picture. What we particularly want to show is the grease way our patented ointment goes into the whatchit."

"Oh," said our hero, and made another set-up to conform to this new concept. The camera was just about to get its button pressed when somewhere far off in the outer darkness, a whistle blew, and workmen started leaving in droves. It was quitting-time! Our hero rounded up the Baper. Couldn't some of the men be prevailed on to remain? We were all ready to shoot. . . Sorry; union rules; have to pay 'em overtime if they stayed. Besides, they hadn't turned out more than an hour's work all day, what with the fast-blowing, the confusion, and all. Anyway, he hadn't been given any orders about movies.

There followed sweetly days and sleepless nights. Days marked not by numbers but by minor catastrophe. Nights in which our Patient tossed feverishly in his bed, grinding his teeth and wondering why he had ever found movie-making so much fun.

But finally it was finished. At least the shooting was. He had shot more mechanical gaffs than he had ever

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thought existed. A darn sight worse than Oakes and Deakins and he had discussed that first memorable morning. He was particularly proud of one shot he had made, that close-up of a steel bit or chuck or whatever it was, cutting down metal to within 1/10,000 of an inch. That was a good shot and he had spent a lot of time getting it. Tonight he would get everything ready. Tomorrow the client would look at the "rushes." It was about time to collect. Our Patient felt better.

The client shook him affably by the hand as he seated himself next to the projector. He overheard Mr. Deakins whispering "I had him bring all he has shot. I thought we might as well choose what should and what should not go into the picture." He knew he didn't like Deakins . . . or even Oakes, for that matter.

The projector started to hum. The film had been spliced together with as skill as at a dentist's—just transferred from the laboratory reels to a generously filed 3500-foot reel. It represented everything he had taken . . . well, almost everything. The wind blew the venetian blinds from the window, letting the sun-light stream fitfully into the room. Reluctantly, our hero poured the results of his two months' work through a channel of light in the half-lit room.

The only sound that broke the silence was the whirling of the projector. As he stood beside it, our hero sensed that something was missing. He didn't know what it was, but it was the assurance of appreciation that had always accompanied the showing of his movies at home. Today, not a sound came from the audience.

But all too soon it came. The interior staff began to unroll and the client said, "What makes 'em look so red?" Then, "Why is everything so dark?" That was Deakins. "What makes everybody move so fast?" That was Oakes. Our Patient wanted to explain that the normal speed for sound was 24 frames per second rather than the silent-picture 16-frame speed he'd been using. But the client interrupted, "No, no! I don't want to show that place of machinery; it's an old trick! Didn't you get the new one?" Our hero didn't know . . . there had been so many machines—!

At our rate, though, he thought, that shot of the balls will make 'em sit up. Finally the last scene before that close-up came on. Then the screen went black. "Is that the end?" asked the client. Ten seconds later, as the next scene duly flashed across the screen, our hero realized he had made that expert close-up—with the lens-cap on!

It is hard to draw a moral curtain over the rest of that session, and the ones that followed. His troubles certainly hadn't ended with the shooting, even after going back to shoot 500 expensive feet more of the bits his client had missed at the preview. There had been cutting and re-cutting as minds were changed again and again. The

poor film began to look as if it had been shot in a ram-storm. There had been the writing of narrative—somehow there were always too many words to be said during the short scenes, and not nearly enough during the long ones. And sound-recording and making the composite color-tape also ate up more money than he had imagined possible . . . especially when some of the original recording didn't suit the client and had to be done over.

But at long last our Patient, in the comparative comfort of his own living-room, smoothed his newly-gray hairs and studied his expense-book. For the tenth time he figured his costs and receipts on the job. Every time he got the same answer—a net profit of only \$2.31. It didn't seem possible that a thousand dollars (plus) could be swallowed up so quickly. Two dollars and thirty-one cents—well, not everyone made a profit on his first job.

"Two dollars and thirty-one cents in all these weeks," said his wife. "And all your stock to your old job you'd have made about five hundred dollars—and had time to enjoy your movie-making besides!" The "little woman" always was practical. END.

Football

[Continued from Page 40]

substandard cameras offer to be fast, but expensive; you can do very nearly as well using 48-frame speed, and move a lot of film and money. This speed is quite slow enough on the screen to let you study the play carefully; most coaching films are shot at this speed, for if there's any reason to want additional slow-motion analysis, the average projector can be slowed enough to give the equivalent of 64-frame slow-motion and still not produce too unpleasant a flicker.

If you can afford it, I'd certainly recommend Kodachrome for any football movies. The color-film makes it much easier to follow the play, for the color-contrasts between the green grass of the field and the contrasting colors of the players' jerseys make plays and players



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stood out in a way that's impossible to capture in black-and-white. In color, there's rarely any question as to whether your team's No. 11 or the opponent's No. 71 made the play!

If you do use black-and-white, though, you'd better come prepared with two types of film, to allow the most efficient filming under the varying light-conditions you'll encounter in the course of the game. During the first half, the field is likely to be bathed in brilliant sunlight, and exposure won't be much of a problem. So for your earlier scenes use a comparatively slow-speed and inexpensive ordinary panchromatic.

Later in the game, though, as the sun sinks closer to the horizon, you'll find in most stadiums that more and more of the field is in shadow. For this part of the game you'll need a faster film, like Super-X or Super-XX, so that you can still get a full normal exposure and at the same time keep your lenses reasonably well stopped down for maximum depth and definition.

Determining your exposure is likely to be something of a problem, for working with telephoto lenses your camera will be taking in a much smaller field than your exposure-meter will from camera-position. Often the chaps who film football professionally solve the problem by simply seating an assistant down onto the field at intervals, to take meter-readings close to the subject. But I'm inclined to think that the average amateur could do quite as well making use of the "high-light" exposure-determining system recently described in *THE AMERICAN CINEMATOGRAPHER* by E. C. Smithburn, who told of a system of taking incident-light readings by measuring the light reflected from a matte white card held in front of the meter's cell and of course exposed to much the same type of light that illuminates the subject.

Using a moderate-powered telephoto lens which shows the whole play rather than concentrating on a single player or two eliminates one of the tougher problems the nervous men have to contend with. In an extreme, "arm-and-type" telephoto shot, you've got to have what amounts almost to a sixth sense to "swell out" the play as it develops. Otherwise you may find yourself intensely following some player who maybe had the ball at the start and faked it to a team-mate, or maybe didn't have it at all—and meanwhile, some other ball-packer out of the picture is springing away in a touchdown!

But using an angle that shows the play as a whole, you can follow the ball much easier, no matter how much "ramble-ramble" and deception is involved.

On pass plays, and long runs, too, you'll probably find it most interesting to frame your shot with the ball or ball-carrier well toward the back edge of the frame, rather than keeping him directly centered. In this way, in addition to watching the ball or the runner, you can watch how the pass-receiver gets into place, or the interference or tacklers come in to do their part.

Finally, if you want really good football movies, remember to approach the job, not as a football fan, but as a photographer. If you get excited over the game, you're all too likely to miss an important shot, or at least do something with only half your mind at work, and hence it's END.

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(Continued from Page 412)

ing the heard to your usual tithead, or you can fasten the heard directly to the tripod-top, and use an individual tithead under each of the two cameras. The way you can put this gadget to practical use are almost endless, and limited only by your supply of camera-equipment. If, for instance, you have two cine-cameras, you can put both of them on the two-head, and use one with a normal or wide-angle lens, and the other with a telephoto. In this way you can shoot your long-shots as usual with one camera, and get close-ups at the same time with the second camera. You've no idea what a difference it makes in one's pictures to be able to do this; we all know that one of the outstanding weaknesses of most home movies is a general lack of enough close-ups, and with a set-up like this you can get close-ups with virtually no additional trouble or effort.

Sometimes you may want to get both color and black-and-white versions of the same picture. In this case, you can simply load one camera with Kodachrome and the other with black-and-white, and shoot your scene with whichever you prefer, or both.

For shooting news events such as parades, football-games, and the like, the two-head is a life-saver. I simply use two identical cameras, with identical lenses and film, on the two-head, and alternate from one to the other. While I'm shooting one camera, my chief assistant (my No. 1 son) winds and reloads the other. In that way we can cover a parade or a football-game completely, without losing anything.

HARRY A. WARD, JR.

Photography of the Month

(Continued from Page 416)

almost incredible achievement.

We had gained the impression that the Indian cinematographer, due to economic and other restrictions, tended wherever possible to avoid studio interiors. But in "Gyander," at least, this is by no means the case. To our view, the interiors were in many ways the best part of the film. Some of them were simple; others surprisingly expensive.

But Cinematographer Dutt has handled them well. His dramatic lightings—especially in the early sequences—are strikingly effective, and very sensitively handled.

The exteriors are not always quite so pleasing. Dutt was undoubtedly handicapped by India's tropical weather-conditions. There are some scenes in which he has had to face the problem of a background of misty, yellowish hillsides in a blurring sun, with his foreground actors in natural or artificial shadow. He could not—as a Hollywood master-studio cinematographer might do—spray several acres of a hillside to a darker shade, nor did it seem possible that he could effectively use a large screen between foreground and background. One cannot help wondering, however, why he did not attempt the use of a neutral-density filter as a means of correcting the strong contrasts. Others of the exteriors, however, were quite good. Some showed excellent pictorial quality.

A very striking feature of the film was the way these Indian technicians—presumably because they lacked facilities to do otherwise—have filmed by straightforward methods a vast deal of action which we would do as process-shots. And they do it exceptionally well, too. The sequence in the farmer's bullock-cart is an outstanding example of this. It is, also, one of the highlights of the production. Technically very well handled, this sequence reflects great credit upon co-directors Fahial and Dande for the way they have coordinated the rhythm and, presumably, the wording of the song being sung with the rhythm of the action accompanying it on the screen. This sequence, in this respect, takes place in this reviewer's mind, at least, among the half-dozen most effective musical sequences he has ever seen. Throughout the film, in fact, Fahial and Dande have shown an understanding of cinematic rhythm and tempo superior to that shown by many a Hollywood "ace" director.

The special-effects work in this film is another noteworthy highlight. With the exception of one projection-process sequence used for "trick" effect, much of the trick work must have been done directly in the camera. It is most copiously done, too: Cinematographer Dutt has turned out some shots—such as the "flying wall"—which are definitely ex-

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